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Socioeconomic Characteristics of Medical Practice 1987

Edited by
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with the assistance of Diane Stephens

The information contained in this volume is from the AMA Socioeconomic Monitoring System. The AMA Center for Health Policy Research directs the Socioeconomic Monitoring System in cooperation with the AMA Division of Survey and Data Resources.

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Foreword

Increases in physician supply, efforts to control health care costs, especially costs relating to Medicare, and concerns regarding professional liability have all contributed to continuing rapid change in the medical practice environment. The ability of physicians, policymakers and the public to make well-informed decisions in response to this change rests on the availability of detailed and timely information on the socioeconomic aspects of medicine. The 1987 edition of Socioeconomic Characteristics of Medical Practice (or the "Gray Book") is meant to provide such information.

This year's Gray Book includes six studies on subjects of significant policy interest relating to the socioeconomic environment of medicine. These are followed by detailed tabulations of statistics and trends on a broad range of characteristics of physicians' practices, including income, expenses, fees and certain practice activities. Nine new trend tables have been added to this edition. Six sets of graphics have also been added. The new trend tables and graphics provide an enhanced perspective of the detailed statistics reported in the book.

A program of the magnitude of SMS requires major commitment and substantial effort from many individuals. Although it is impossible to name each individual, I would like to express my gratitude to all who have contributed to SMS and this edition of the Gray Book. Special thanks are due Roger A. Reynolds, Ph.D., Director of the Department of Medical Practice Economics, who had major responsibility for oversight of this publication, and Norbert W. Budde, Ph.D., Director of the Division of Survey and Data Resources, whose division has cooperated with the Center for Health Policy Research in many of the activities relating to SMS.

James F. Rodgers, Ph.D.
Director
Center for Health Policy Research

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Introduction

Socioeconomic Characteristics of Medical Practice (the "Gray Book") is an annual volume with studies and statistics based on information collected by the AMA Socioeconomic Monitoring System (SMS). The Gray Book maintains the tradition of the AMA, established in past by the series Profile of Medical Practice, as a primary source of baseline data on socioeconomic aspects of medicine.

This volume is primarily devoted to providing detailed information on medical practice characteristics in 1986 based on data collected by SMS surveys. In addition, trends are shown for characteristics for which similar data were collected in the past by AMA Periodic Survey of Physicians (PSPs). In order to maintain continuity, every effort has been made to ensure that data reported in the Gray Book from the PSPs are consistent with the information in Profile in Medical Practice 1981.

Several changes have been made in this year's edition of the Gray Book. First, all data reported in this year's edition, unless otherwise noted, have been weighted to adjust for survey non-response bias. We have done this to increase the reliability of our data. The use of weights in the calculation of the figures will cause the figures reported in this year's volume to differ from those reported in previous editions of the Gray Book. A full explanation of the weighting methodology is presented in Appendix B of this book.

This year's edition includes six studies on the socioeconomic environment of medicine. Topics covered by these reports include physician involvement with Medicare, professional liability, physician income distribution, physician fees and third-party reimbursement, charity care and physician responses to competition.

This edition also includes nine new trend tables and six sets of graphics. The addition of the new tables and graphics will provide an enhanced perspective of the figures reported in the Gray Book.

Following past practice, a series of appendices relating to the methodology of the SMS surveys, the SMS questionnaire, and definitions of variables reported in the Gray Book is included at the end of the book. These appendices are designed to answer most questions about how information included in this volume is generated. We urge readers to avail themselves of this information in considering the results published elsewhere in the volume.

We are especially grateful to James F. Rodgers, Director of the Center for Health Policy Research and/Roger A. Reynolds, Director of the Department of Medical Practice Economics, who provided comments and advice at all stages of the development of this volume.

Martin L. Gonzalez
David W. Emmons

Socioeconomic
Characteristics of
Medical Practice
1987

Studies on the Socioeconomic Environment of Medicine

Provision of Charity Care by Physicians
Trends, Variations and the Distribution of Physician Earnings
Physician Involvment with Medicare, 1984 and 1986
Third-Party Reimbursement and Physician Fees
Physician Responses to Competition, 1980-1987
Medical Professional Liability Premiums and Claims

Provision of Charity Care by Physicians

by John A. Rizzo

With growing concern over the rising cost of medical care, attention has been focused on ways in which all parties involved can contribute to resolving this problem. An important contribution on the part of physicians is the provision of charity care. The most obvious example of physician-provided charity care is care which is provided free of charge — uncompensated care. But charity care may also take the form of reduced fees to economically disadvantaged groups and/or groups lacking health insurance coverage.

This report examines the characteristics of physicians who are more likely to provide charity care and the extent of charity care they provide. The results suggest that:

- The overall provision of charity care is substantial and increasing: while free or reduced fee care lowered physician billings by 8.0% in 1982, by 1987 this figure had climbed to 11.9%.
- In 1987, 17.6% of all physicians (as determined from their last complete week of practice) provided uncompensated care to individuals outside of their practice, spending an average of 4.4 hours per week in providing such free care.
- More physicians in surgical and other non-primary care specialties provide uncompensated care than those in primary care specialties.
- Female physicians devote more than twice as much time to providing uncompensated care than male physicians. In 1987, female physicians spent 8.5 hours per week on uncompensated care, while male physicians spent only 4.0 hours on such care.

Data used in this report are drawn from the AMA's Socioeconomic Monitoring System surveys of nonfederal patient care physicians (excluding residents). The surveys in which charity care data were collected were the core 1987 survey and the fourth quarter 1982 survey. Observations on 3,200 physicians were available from the 1987 survey and on 1,100 physicians from the earlier 1982 survey. The statistics reported below are unweighted means of survey responses.

In the 1987 survey, physicians were asked whether or not they had provided any uncompensated care during the past week and the number of hours per week spent in this activity. Since additional uncompensated care may have been provided to patients in the physician's main practice, this measure may understate the total amount of uncompensated care provided. In both surveys, physicians were asked how much their billings were reduced during the past year as the result of providing free or reduced fee care.

It should be noted that some reduced fee care may have been provided, not out of charitable motives, but in order to fill out patient caseloads. To the extent that this is true, the measures of reduced billings discussed in more detail below overstate the amount of care being provided by physicians out of purely charitable motives.

Another point to note is that, in the 1982 survey, physicians were asked about free or reduced fee care they provided to patients who lost their health insurance due to unemployment or Medicaid cutbacks. While these groups probably represent the majority of physicians' charity care caseloads, they are not exhaustive. In the 1987 survey, physicians were queried about free or reduced fee care provided to all patients.

To facilitate comparisons across the two data sets,

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the physician populations were made as similar as possible. Since the 1982 data on charity care excluded physicians who did not provide at least some fee-for-service care and physicians specializing in radiology, anesthesiology and pathology, these groups were also excluded from the data reported from the 1987 survey below.

Trends in Uncompensated Care

A substantial proportion of physicians are providing uncompensated care. In 1987, 17.6% of all physicians provide uncompensated care (see Table 1). In terms of differences across specialties, the results indicate that:

- General and family practitioners devote fewer hours per week (3.9) to providing uncompensated care than other specialists.
- A higher proportion of surgical specialists (20.9%) and other non-primary care physicians (18.5%) provide uncompensated care than primary care specialists such as general and family practitioners (16.3%) and medical specialists (13.9%).

Turning to regional breakdowns, the results show substantial variability in hours spent in providing uncompensated care, while variations in the proportion of physicians providing uncompensated care are more modest:

- Physicians in the West averaged 5.9 hours per week on uncompensated care. Physicians in the North Central region spent the least amount of time on uncompensated care (3.9 hours per week).
- The percent of physicians providing uncompensated care was highest in the South (19.6%) and lowest in the North Central region (15.5%).

In terms of variations by age bracket, the results suggest that physicians spend the most time on uncompensated care during their peak practice years. As Table 1 indicates, physicians aged 46-55 averaged 5.8 hours per week on uncompensated care. Both older and younger physicians spent substantially less time in providing uncompensated care. Variations by age in the proportion of physicians who provide uncompensated care suggest that the proportion of physicians providing uncompensated care rises with age. Possibly, older physicians are more likely to provide uncompensated care because their practices are more established, so providing uncompensated care poses less of a financial burden to them than it does to younger physicians. In addition, older physicians may be more inclined to provide charity care when they have had long-standing relationships with patients who may be temporarily unable to pay for medical services due to unemployment or other financial setbacks. Differences in uncompensated care by sex are more pronounced than those by other characteristics. In particular, female physicians spend more than twice as many hours per week (8.5) providing uncompensated care than their male counterparts (4.0 hours). This pattern is somewhat surprising. Given that female physicians earn less, on average, than male physicians, it should be more financially burdensome for them to provide uncompensated care than for males. On the other hand, female physicians have smaller caseloads than male physicians, and therefore more free time to devote to uncompensated care.

Table 1. **Uncompensated Care by Selected Practice Characteristics, 1987[a]**

	Percent Providing Uncompensated Care	Hours/Week Providing Uncompensated Care[b]
All Physicians	17.6%	4.4
Specialty		
General/Family Practice	16.3	3.9
Medical	13.9	4.9
Surgical	20.9	4.5
Other	18.5	4.2
Region		
Northeast	18.1	4.4
North Central	15.5	3.9
South	19.6	4.0
West	15.7	5.9
Age		
Under 36	15.0	4.3
36-45	15.9	3.8
46-55	19.2	5.8
Over 55	19.7	3.9
Sex		
Male	17.8	4.0
Female	15.5	8.5

Source: See discussion in the article.

a. The data reflect only uncompensated care provided to patients outside the physician's practice.

b. Includes only physicians who provide some uncompensated care.

Reduced Billings from Free or Reduced Fee Care

Table 2 presents the percentage reductions in billings due to free or reduced fee care in 1982 and 1987. As mentioned above, the percentage reduction in billings due to free or reduced fee care is higher in 1987 (11.9%) than in 1982 (8.0%). One explanation for this pattern is that, in light of growing competition, physicians are more frequently reducing their fees, not only to provide care to the needy, but to compete with other physicians for patients. Another possibility is that cutbacks in Medicaid coverage have increased the number of needy individuals and physicians have responded by providing more free and reduced fee care.

Variations by specialty show an interesting pattern. Physicians in surgical specialties appear to engage in more free or reduced fee care than primary care physicians. For example, in 1987, free or reduced fee care lowered billings of surgical specialists by 12.7%, while billings of general and family practitioners were lowered by 10.1%. Given the high cost of some surgical procedures, making these procedures available to the needy may require greater discounting of fees than would be required for primary care services.

The regional breakdowns indicate that free or reduced fee care in the South reduced billings by 6.5% in 1982, substantially below the corresponding reductions in the Northeast (9.4%), North Central (8.3%) and West (9.0%) regions. By 1987, however, percentage reductions in billings due to free or reduced fee care were more evenly distributed across regions, although the greatest reduction occurred in the West (12.5%).

Reduced billings by age group in 1982 are greatest among physicians aged 55 and over (8.9%), followed by the 36-45 age group (8.4%), the under 36 age group (7.5%) and the 46-55 age group (6.9%). In 1987, billing reductions in each of the two groups aged 45 and under exceeded billing reductions in the older groups although the differences are modest.

Table 2 also indicates that, in both 1982 and 1987, the percentage reduction in billings due to free or reduced fee care was greater for female physicians than for male physicians. While free or reduced fee care lowered billings by 7.9% for male physicians in 1982, the corresponding figure for female physicians was 11.6%. By 1987, the gap narrowed, but the percentage reduction in billings for male physicians (11.8%) was still below that for female physicians (13.5%).

Table 2. **Percentage Reductions in Billings due to Free and Reduced Fee Care by Selected Physician Characteristics, 1982 and 1987**[a]

	1982	1987
All Physicians	8.0%	11.9%
Specialty		
General/Family Practice	7.7	10.1
Medical	6.9	11.0
Surgical	7.3	12.7
Other	10.3	13.6
Region		
Northeast	9.4	11.8
North Central	8.3	11.4
South	6.5	11.8
West	9.0	12.5
Age		
Under 36	7.5	12.8
36-45	8.4	12.2
46-55	6.9	11.5
Over 55	8.9	11.6
Sex		
Male	7.9	11.8
Female	11.6	13.5

Source: See discussion in the article

a. For 1982, free or reduced fee care was defined as care given to patients who (a) became unemployed and lost health insurance during the past year or (b) lost their Medicaid coverage due to program cutbacks in the past year. While these groups probably represent the majority of physicians' charity care caseloads, they are not exhaustive. For 1987, free or reduced fee care was not restricted to any specific groups.

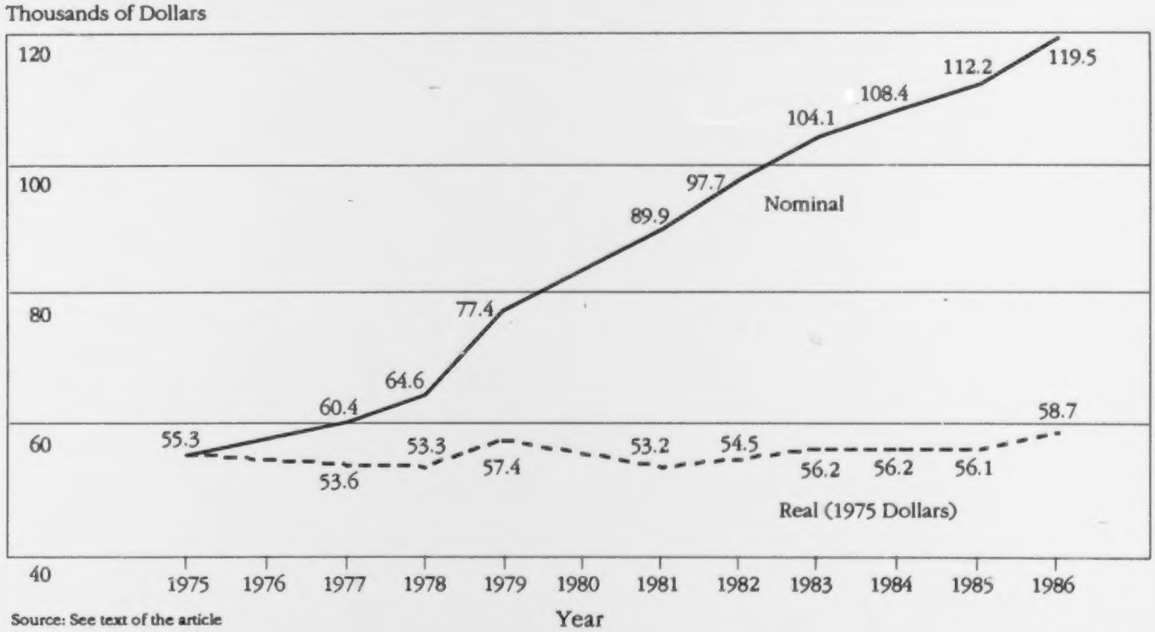
Conclusion

The data presented in this report suggest that physicians are continuing to provide substantial amounts of charity care, even though the financial burden from providing such care may be increasing. Given the growth in competition, it is encouraging that physicians are continuing to respond to the economically disadvantaged in this way. Whether such behavior will be maintained as competitive pressures continue to mount, is uncertain.

Trends, Variations and the Distribution of Physician Earnings

by Martin L. Gonzalez

Figure 1. **Average Physician Nominal and Real Net Income Before Taxes After Expenses, 1975-1986**



Source: See text of the article

An important indicator of the changing economic environment of medicine is physician earnings. This paper provides an overview of trends and patterns in physician net income since 1975. Throughout the discussion, physician net income (or earnings, a term used synonomously with net income) is defined as physician income from medical practice after expenses and before taxes.

Major results of the analysis include the following:

- Average net income of physicians reached $119,500 in 1986. However, after adjusting for inflation net income in 1986 was only slightly higher than 1975 net income.
- Although average physician net income was $119,500 for all physicians, 50% of physicians earned less than $100,000 and 25% earned less than $70,000 in 1986.
- The distribution of real net income in 1986 has changed little since 1975 for the overall physician population. However, significant changes in the distribution of real net income have occurred within some specialties during this period.

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Physician net income data used in this report for the years 1981-1986 are from the 1982-87 AMA Socioeconomic Monitoring System core surveys. Physician net income data for the years 1975-1979 are from the 1976-1980 AMA Periodic Surveys of Physicians. Data from individual respondents to these surveys were weighted to correct for survey nonresponse bias. Adjustments to income for the effects of inflation are based on the all items Consumer Price Index for all urban consumers. An appendix to this paper explains the methodology for making these adjustments.

Trends in Nominal and Real Net Income

Figure 1 compares average nominal and average real net income of all physicians, i.e., net income unadjusted and adjusted for the effects of inflation respectively, in 1975 and 1986. Real net income is expressed in terms of the purchasing power of a dollar in 1975. Nominal net income rose at an average annual rate of 7.3% during this period. However, real net income increased at a rate of 0.5%.

In 1986, the specialists with the highest nominal average earnings were radiologists, surgeons and anesthesiologists. The lowest average earnings were experienced by general/family practitioners, pediatricians, and psychiatrists. From 1975 to 1986, the results indicate that:

- Nominal net income increased in all specialties. Surgeons, radiologists, anesthesiologists, obstetricians/gynecologists and psychiatrists also experienced an increase in real income during this period.
- Real net income declined among physicians in general/family practice, internal medicine and pediatrics.

The Distribution of Physician Net Income 1986

Confining attention to average income can be misleading if taken as representative of typical physician earnings because of the influence of incomes at the high end of distribution. To provide a better perspective on the distribution of income among physicians, net incomes at the twenty-fifth, fiftieth (the median), and seventy-fifth percentiles are presented in Table 2. Several points of interest emerge from an examination of this information:

- Comparison of the mean to the median income indicates that a majority of physicians earn less than the average earnings level. Although average net income was $119,500 for all physicians, 50% of physicians earned less than $100,000.
- Mean net income was larger than median income in all specialties. However, the ranking of mean income across specialties was relatively similar to that of the median.
- At the upper end of the income distribution 25% of physicians earned over $150,000 in 1986; at the lower end, 25% of physicians had incomes of $70,000 and less.
- Income levels at each quartile of the earnings distribution by specialty were highest among radiologists. They were lowest among general/family practitioners and pediatricians.

A comparison of the distribution of real net income in 1975 and 1986 provides further insight into the real earnings of physicians. Table 3 indicates physician net income levels at the 25th, 50th and 75th percentiles in 1975 and the percent of physicians in 1986 whose real income (in 1975 dollars) fell below these levels. The results indicate that the distribution of real income changed very little in 1986 compared to 1975 for the overall physician population. Median net income in 1975 was $50,000; in other words, fifty percent of physicians earned under $50,000 in 1975. In 1986, 53.2% of physicians earned real net income below $50,000.

Larger changes in the distribution of real income occurred within specialties. The percent of physicians whose real income fell below 1975 25th, 50th and 75th percentile levels increased among general/family practice physicians, internal medicine and pediatricians. The percent of psychiatrists whose real income fell below 1975 50th and 75th percentile levels increased in 1986. However, there was a decrease in the percent of psychiatrists whose real income fell below the 1975 25th percentile level. Pediatricians experienced the largest increase in the share of physicians with earnings below the 1975 median: 61.7% of these physicians earned less, in real terms, in 1986 than the 1975 median net income of $42,000.

The percent of physicians whose real income fell below 1975 25th, 50th and 75th percentile levels decreased among surgeons, obstetricians/gynecologists, radiologists and anesthesiologists. The largest

Table 1. **Annual Percent Change in Average Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1975-1986**

	Average Net Income			Annual Percent Change	
	1975	1986 Nominal	1986 Real[a]	Nominal	Real
All Physicians[b]	55.3	119.5	58.7	7.3%	0.5%
Specialty					
General/Family Practice	44.3	80.3	39.4	5.6	–1.1
Internal Medicine	55.7	109.4	53.7	6.3	–0.4
Surgery	66.5	162.4	79.7	8.5	1.8
Pediatrics	42.7	81.8	40.2	6.1	–0.6
Obstetrics/Gynecology	61.0	135.9	66.7	7.6	0.9
Radiology	73.1	168.8	82.8	7.9	1.2
Psychiatry	44.1	91.5	44.9	6.9	0.2
Anesthesiology	56.4	150.2	73.8	9.3	2.6

Source: See discussion in the text.
a. In 1975 dollars.
b. Includes physicians in specialties not listed separately.

Table 2. **Distribution of Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1986**

	Mean	25th Pecentile	50th Percentile	75th Percentile
All Physicians[a]	119.5	70.0	100.0	150.0
Specialty				
General/Family Practice	80.3	53.0	75.0	100.0
Internal Medicine	109.4	67.0	95.0	130.0
Surgery	162.4	95.0	141.0	200.0
Pediatrics	81.8	55.0	75.0	100.0
Obstetrics/Gynecology	135.9	89.0	127.0	170.0
Radiology	168.8	120.0	155.0	210.0
Psychiatry	91.5	65.0	82.0	106.0
Anesthesiology	150.2	110.0	149.0	195.0

Source: See discussion in the text.
a. Includes physicians in specialties not listed separately.

decline occurred among anesthesiologists. For example, only 27.9% of anesthesiologists had real net earnings in 1986 below the 1975 median income level of $54,000.

Summary and Conclusions

Analysis of trends in nominal and real physician net income indicates that physician income just slightly exceeded the rate of inflation during the period from 1975-1986. During this period, nominal net income increased at an average annual rate of 7.3%. In real terms, the annual growth rate was 0.5%. While physician net income rose in nominal terms for all specialties, real net income declined among physicians in general/family practice, internal medicine, and pediatrics.

Table 3. **Distribution of Physician Net Income After Expenses Before Taxes (in thousands of dollars), by Specialty, 1975 and 1986**

	1975 Income[a] at the:			Percent of Physicians with 1986 Real Income[b] Below 1975 Income at the:		
	25th Pctl	50th Pctl	75th Pctl	25th Pctl	50th Pctl	75th Pctl
All Physicians[c]	$35.0	$50.0	$70.0	27.0%	53.2%	72.8%
Specialty						
General/Family Practice	30.0	40.0	56.0	36.1	60.5	84.6
Internal Medicine	36.0	50.0	70.0	30.8	57.2	80.6
Surgery	40.0	60.0	84.0	17.6	41.6	63.4
Pediatrics	29.0	42.0	54.0	29.4	61.7	83.5
Obstetrics/Gynecology	42.0	60.0	75.0	22.1	48.4	68.4
Radiology	50.0	68.0	88.0	22.7	37.8	61.4
Psychiatry	30.0	42.0	54.0	20.8	54.7	78.3
Anesthesiology	41.0	54.0	70.0	11.1	27.9	48.5

Source: See discussion in the text.

a. In thousands of dollars.

b. Income in 1986 expressed in 1975 dollars.

c. Includes physicians in specialties not listed separately.

Most physicians earned less than the mean income for their specialty group. Average net income for all physicians was $119,500 in 1986; however, 50% of physicians earned less than $100,000.

A comparison of the distribution of real net income in 1975 and 1986 provides further insight into the real net earnings of physicians. The distribution of real earnings among all physicians changed very little during the period 1975 to 1986. However, changes did occur within specialties. More surgeons, radiologists, anesthesiologists and obstetricians/gynecologists are doing better, in real terms, in 1986 than in 1975. In contrast, general/family practice physicians, internists, pediatricians and psychiatrists are doing worse across the income distribution, in real terms, in 1986 than in 1975.

Appendix: Methodology for Computing Real Income

In the preceding article, 1986 nominal net income figures were converted to real net income figures in order to control for the effects of inflation which occurred during the period 1975 to 1986. In this instance real net income figures were expressed in terms of the purchasing power of a dollar in 1975. However, it is also possible to express real net income in terms of the purchasing power of a dollar in 1970 or any other year during the period 1967 to 1986. This can be done using the figures from the All Items Consumer Price Index (CPI) that are presented in the table below. The basic formula for converting dollars in one year in terms of their purchasing power in another year is as follows:

Real dollars in year i = $\frac{CPI_i}{CPI_j}$ x Nominal dollars in year j,

where CPI_i is the Consumer Price Index for the year which the real dollars will be expressed in (year i) and CPI_j is the Consumer Price Index for the year which the nominal dollars are expressed in (year j). For example, the following formula was used to convert 1986 nominal net income to real net income in (1975 dollars):

$$\text{Real net income} = \frac{CPI_{1975}}{CPI_{1986}} \times \text{1986 Nominal net income}$$

$$= \frac{161.2}{328.4} \times \$119{,}500 = 0.49 \times 119{,}500 = \$58{,}660.$$

Table 4. **Consumer Price Index 1967 to 1986**

Year	CPI	Year	CPI
1967	100.0	1977	181.5
1968	104.2	1978	195.4
1969	109.8	1979	217.4
1970	116.3	1980	246.8
1971	121.3	1981	272.4
1972	125.3	1982	289.1
1973	133.1	1983	298.4
1974	147.7	1984	311.1
1975	161.2	1985	322.2
1976	170.5	1986	328.4

Source: Bureau of Labor Statistics All Items Consumer Price Index for all Urban Consumers.

The interpretation of this result is that almost half of the increase in nominal net income was due to inflation during the period 1975 to 1986.

Physician Involvement with Medicare, 1984 and 1986

by Patrick S. Cotter

The extent to which physicians treat Medicare patients is an important factor in the health care decisions of Medicare enrollees, policymakers and physicians alike. For beneficiaries, physician involvement represents access to medical services. For policymakers, changes in involvement provide an indication of physician response to modifications in Medicare's reimbursement methodology. For physicians, the extent of involvement indicates the degree of competition in that important health care market.

This report examines four aspects of the extent of physician involvement with Medicare: (1) the percent of physicians who receive any revenue from Medicare patients; (2) the share of physician revenue from Medicare for physicians who treat Medicare patients; (3) the percent of physicians with Medicare patients who joined Medicare's Participating Physician program; and (4) the rate at which physicians accept assignment of claims for Medicare services. These measures are considered across a variety of physician practice characteristics. The data are obtained from the American Medical Association's Socioeconomic Monitoring System (SMS) core surveys of nonfederal patient care physicians (excluding residents) for 1984 and 1986.

The key findings from the data are:

- the percent of physicians with any Medicare revenues and the share of their practice income from Medicare remained virtually unchanged from 1984 to 1986; and
- physician assignment rates and participation in the Medicare Participating Physician program increased substantially over the period 1984 to 1986.

Physician Medicare Revenues

Table 1 presents the percent of physicians, by specialty, who received any revenues from Medicare in 1984 and 1986. The figures reveal that:

- the share of all physicians who received any Medicare revenues declined slightly, from 71.2% in 1984 to 69.1% in 1986;
- among the specialties, the percent of physicians with Medicare revenues increased for only general/family practice, radiology and psychiatry, but again the increase was slight; and
- surgeons' involvement with Medicare declined by the greatest amount, five percentage points from 84.3% in 1984 to 79.3% in 1986.

The decrease in surgeons' involvement most likely reflects increased beneficiary use of outpatient services in response to limits on hospital inpatient reimbursement from DRGs.

The share of physicians reporting receiving any Medicare revenues differs from the percent who report treating patients whose principal source of coverage is Medicare (90.1% of physicians in 1986 reported treating such patients). Several factors may contribute to this difference. First, many patients covered by Medicare do not have claims exceeding the Medicare deductible in a given year. Second, some physicians may not have included revenues from unassigned Medicare claims in reporting the percent of revenues from Medicare even though wording of the survey question suggested they should have. Finally, some physicians may have had only a negligible number of Medicare patients (less than one-half percent), so the reported revenue share would be rounded to zero.

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The percent of practice revenue derived from Medicare among physicians with any Medicare revenue remained virtually unchanged between 1984 and 1986. Table 2 indicates that for all physicians with Medicare revenues, the share of practice revenue from Medicare was 28.7% and 28.6%, respectively, in 1984 and 1986. Specialties which increased their Medicare revenues on average included internal medicine, radiology, psychiatry and "other" specialists. In each case, however, the increase was slight and not statistically significant. All other specialties experienced small declines in Medicare revenues, except for pediatrics which fell from 17.8% to 5.9%. This drop is likely due to the very small sample of pediatricians with Medicare patients included in the survey.

Table 3 shows the distribution of Medicare revenues among physicians with any Medicare revenues in 1986. For all physicians, 44.2% received less than one-quarter of the revenues from Medicare, and 81.7% received less than half. Almost 4%, however, reported that 75-100% of their revenues were from Medicare. Six specialties deviated significantly from the overall average:

- Pediatric, obstetrics/gynecology and psychiatry specialists were heavily distributed in the lower revenue classes, reflecting their limited involvement with Medicare patients.

Table 1. **Percent of Physicians with Any Medicare Revenues, 1984 and 1986**

	1984	1986
All Physicians	71.2%	69.1%
Specialty		
General/Family Practice	76.4	76.7
Internal Medicine	83.7	80.3
Surgery	84.3	79.3
Pediatrics	14.4	12.4
Obstetrics/Gynecology	75.4	71.0
Radiology	71.2	71.8
Psychiatry	57.9	58.9
Anesthesiology	75.1	73.3
Pathology	64.2	61.9
Other Specialties	67.8	64.4

Source: See text.

Table 2. **Percent of Revenues from Medicare Among Physicians with Any Medicare Revenues, 1984 and 1986**

	1984	1986
All Medicare Physicians	28.7%	28.6%
Specialty		
General/Family Practice	25.2	24.0
Internal Medicine	39.2	40.2
Surgery	32.7	31.7
Pediatrics	17.8	5.9
Obstetrics/Gynecology	8.1	7.5
Radiology	32.8	33.2
Psychiatry	12.4	12.9
Anesthesiology	29.8	28.3
Pathology	36.6	33.9
Other Specialties	26.2	29.9

Source: See text.

- Internal medicine, radiology and pathology specialists were more dependent on Medicare revenue than the average. Over three quarters of the physicians in these specialties received 25% or more of their revenues from Medicare. Almost nine percent of internists received from three-fourths to all of their revenue from Medicare.

In summary, the figures presented in Tables 1 through 3 indicate that, between 1984 and 1986, Medicare beneficiary access to physicians has been stable. The effect of payment restrictions on physician involvement with Medicare appears, thus far, to have been minimal in terms of the percent of physician revenues from Medicare.

Medicare Participating Physician Program Involvement and Assignment of Claims

While revenue received from Medicare is an important measure of involvement, beneficiaries and policymakers are keenly interested in how physician involvement in Medicare responds to changes in the reimbursement methodology. Physician response to the introduction of the Medicare Participating Physician program and the rate at which physicians accept claims on assignment are two important indicators in this regard.

The Medicare Participating Physician (MPP) program, instituted on October 1, 1984 by the Deficit

Table 3. **Percentage of Physicians with Any Medicare Revenues by Medicare Revenue Shares, 1986**

	Percent of Total Practice Revenue			
	1-24%	25-49%	50-74%	75-100%
All Medicare Physicians	44.2%	37.5%	14.5%	3.8%
Specialty				
General/Family Practice	53.9	34.9	9.4	1.8
Internal Medicine	22.5	41.7	26.9	8.9
Surgery	36.9	41.0	17.4	4.7
Pediatrics	100.0	0.0	0.0	0.0
Obstetrics/Gynecology	90.6	9.4	0.0	0.0
Radiology	23.8	58.6	16.6	1.0
Psychiatry	81.9	15.1	2.4	0.6
Anesthesiology	39.6	52.6	6.5	1.3
Pathology	25.6	53.9	19.2	1.3
Other Specialties	45.6	35.6	13.8	5.0

Source: See text.

Reduction Act of the same year, was designed to encourage physicians treating Medicare patients to agree to accept assignment on all claims for their services. Assigned claims are submitted to Medicare by physicians who in turn receive "reasonable" payments directly from Medicare. Assignment of claims precludes physicians from billing patients for the balance of charges not deemed reasonable by Medicare's reimbursement methodology. Physicians who choose not to participate in the MPP program retain the option of assigning claims on a case-by-case basis. On an unassigned claim, the physician bills the patient for the service provided. The patient is responsible for paying the physician the entire charged amount regardless of the reasonable reimbursement received from Medicare. This difference between the actual charge and Medicare's reasonable payment represents the additional beneficiary liability on an unassigned claim.

The primary goal of the MPP program is to reduce beneficiary financial liability on unassigned claims by increasing the assignment of claims. This goal is particularly important in light of the restrictions imposed on Medicare's payments for physician services over the past ten years. These restrictions on reasonable charges directly increase beneficiary out-of-pocket costs on unassigned claims by widening the differential between actual charges and Medicare's reimbursement. Payment restrictions indirectly increase beneficiary liability by reducing physician incentives to assign claims. In order to avoid these outcomes, Medicare has incorporated payment differentials between participating and nonparticipating physicians to provide additional financial encouragement for participating in the MPP program. The success of this program and, ultimately, the success in increasing assignment rates depend crucially on the response of physicians to incentives to join.

The extent of physician participation in the MPP program for 1986 by specialty and other practice characteristics is presented in Table 4. The figures report the percentage of physicians receiving Medicare revenues who elected to join the MPP program as of October 1, 1985. The following are several key observations from those figures:

- Among all physicians with any Medicare revenues, 43.3% elected to join the MPP program in 1985.
- Among specialties, radiologists had the highest participation rate at 59.6%, followed closely by pathologists at 57.7% and "other" specialists at 57.3%. The specialty with the lowest participation rate was anesthesiology at 31.2%.
- Physicians with Medicare revenues in the Northeastern states had the highest participation rate in 1986 at 52.8%. Western states were the lowest with 38.1%. Physicians in large urban areas participated at a 47.3% rate compared to their colleagues in

Table 4. **Percent of Physicians with Any Medicare Revenues Electing the Medicare Participating Physician Program, 1986**

Physician Characteristic	Percent	Physician Characteristic	Percent
All Medicare Physicians	43.3%		
Specialty		*Age*	
General/Family Practice	38.7%	Under 36	44.2%
Internal Medicine	40.5	36-45	45.6
Surgery	38.4	46-55	40.9
Pediatrics	48.6	Over 55	41.5
Obstetrics/Gynecology	47.6		
Radiology	59.6	*Sex*	
Psychiatry	41.6	Male	42.5%
Anesthesiology	31.2	Female	54.2
Pathology	57.7		
Other Specialties	57.3	*Board Certification Status*	
		Certified	42.8%
Region		Not certified	44.3
Northeast	52.8%		
North Central	41.1	*Medical School Location*	
South	42.2	Foreign	54.2%
West	38.1	United States	40.7
Location		*Type of Practice*	
Rural	37.7%	Solo	37.8%
Small Metropolitan	41.3	Non-solo	44.7
Large Metropolitan	47.3		

Source: See text.

rural and small metropolitan areas with 37.7% and 41.3% rates respectively.

- Women physicians with Medicare revenues participated at a 54.2% rate compared to men with a 42.5% rate. Physician age differences do not appear to have significantly affected the participation decision.
- Physicians who were board certified, U.S.-educated, or in solo practices were less likely to participate than their respective counterparts.

Average assignment rates for physicians with any Medicare revenues by specialty for 1984 and 1986 are presented in Table 5. The figures reported here differ from those published by the U.S. Health Care Financing Administration (HCFA) for several reasons. First, SMS assignment rates reflect the percent of claims assigned to Medicare per physician averaged over nonfederal patient care physicians; thus, assignment rates of physicians with few Medicare claims are weighted equally with those submitting many claims. In contrast, HCFA rates are the percent of total claims assigned. Second, SMS figures are obtained from a sample of physicians whereas the HCFA rates are based on all submitted claims. Third, the SMS figures include only physicians who actually derive a nonnegligible share of their revenues from Medicare. Finally, the time periods for which assignment rates are reported differ between SMS and HCFA reports. For these reasons, HCFA-reported assignment rates are preferred as an aggregate measure, while SMS figures are more useful for examining physician assignment behavior by specialty and other practice characteristics and the distribution of assignment rates across physicians.

The figures reported for 1984 reflect assignment rates prior to the MPP program, so the comparison with 1986 rates partially reflects the impact of the MPP program on assignment rates. Two points are

Table 5. **Percent of Patient Services Assigned to Medicare by Physicians with Any Medicare Revenues, 1984 and 1986**

	1984	1986
All Medicare Physicians	47.8%	57.5%
Specialty		
General/Family Practice	40.9	51.4
Internal Medicine	48.5	55.4
Surgery	46.8	56.7
Pediatrics	42.2	49.1
Obstetrics/Gynecology	56.8	65.8
Radiology	53.1	64.8
Psychiatry	52.9	58.4
Anesthesiology	40.6	47.9
Pathology	48.8	63.6
Other Specialties	52.9	68.3

Source: See text.

worth noting in particular:

- Average assignment rates increased nearly 10 percentage points between 1984 and 1986, from 47.8% to 57.5%. Similar increases occurred in all specialty groups. The largest increase was among pathologists.
- In 1986, physicians in four specialties had average assignment rates above 60%, whereas no specialty reported rates above 60% in 1984. "Other" specialties led with an average of 68.3% of claims assigned, followed by obstetrics/gynecology with 65.8%, radiology with 64.8% and pathology with 63.6%. Anesthesiology recorded the lowest average assignment rate of 47.9%.

The distribution of Medicare physicians in six assignment rate categories for 1986 is provided in Table 6.(See page 16.) Among all physicians with any Medicare revenues, 46.3% assigned all of their claims and 83.7% assigned at least some of their claims. The specialty breakout indicates that:

- at least 60% of radiologists, pathologists, obstetricians/gynecologists and "other" specialists assigned all of their claims to Medicare; and
- over half of physicians in every specialty except pediatrics, surgical specialties and anesthesiology assigned over 50% of their claims to Medicare.

The figure for pediatricians reflects the small number of those specialists treating Medicare patients included in the survey. The distribution also appears to suggest that once physicians assign more than half of their claims to Medicare, they are considerably more likely to assign 100% of their claims.

It is interesting to compare Tables 4 and 6. Although 43.3% of all Medicare physicians were participating in the MPP program in 1986 and agreed to assign all claims, 46.3% of physicians actually assigned all of their claims. This indicates 3% of physicians with Medicare patients voluntarily chose to assign all claims without becoming participating physicians. The motivation of these physicians is unclear, but it is likely that as Medicare widens the payment differential between participating and nonparticipating physicians, many of these physicians will choose to participate.

Summary

Physician involvement with Medicare, as measured by the percent of practice revenues from Medicare, has remained largely unchanged over the 1984 to 1986 period. This result is important because it appears that the restrictions on reimbursement for physician services imposed over the period did not cause physicians to leave the program. This conclusion must be viewed with caution, however, since the time period considered is only two years. A more noticeable response may appear over a longer time period and as limits on reimbursements become more extensive.

Physicians receiving Medicare revenues appear to have responded to the incentives of the Medicare Participating Physician program by becoming participating physicians and agreeing to assign all of their claims to Medicare. The increase in average assignment rates from 1984 to 1986 indicates that beneficiaries benefited in this participation through a reduction in their liability on charges in excess of reimbursements. Once again, this increase in assignment reflects only a two year change, and may not be indicative of a longer term response of physicians to the incentives of the MPP program.

Table 6. **Percentage of Physicians with Any Medicare Revenues by Assignment Rate Categories, 1986**

	Percent of Claims Assigned					
	0%	1-24%	25-49%	50-74%	75-99%	100%
All Medicare Physicians	16.3%	20.1%	6.4%	6.4%	4.5%	46.3%
Specialty						
General/Family Practice	17.0	26.0	7.0	5.7	3.3	41.0
Internal Medicine	12.0	25.2	9.3	5.8	5.4	42.3
Surgery	12.8	22.5	7.9	8.9	8.0	40.8
Pediatrics	48.6	2.9	0.0	0.0	0.0	48.5
Obstetrics/Gynecology	21.5	8.4	2.6	6.3	1.6	59.6
Radiology	18.1	16.1	2.6	1.6	0.5	61.1
Psychiatry	25.9	8.4	3.0	11.5	6.6	44.6
Anesthesiology	18.8	24.7	7.1	11.7	3.9	33.8
Pathology	23.1	12.8	1.3	1.3	0.0	61.5
Other Specialties	12.1	14.2	6.3	4.6	2.5	60.3

Source: See text.

Third-Party Reimbursement and Physician Fees

by James W. Moser

Patients who receive medical services from physicians are often covered by health insurance. From the patient's point of view, the payment of premiums and coinsurance serves to lessen the financial risk of unexpected large medical bills. From the physician's perspective, an issue of interest is the relationship between the usual fee for the service and the amount reimbursed by third parties.

This article uses data from the AMA Socioeconomic Monitoring System (SMS) to examine the extent of physician involvement with patients covered by each of five types of third-party payors and the share of physicians' fees covered by each type of payor. The major findings are that:

- Medicare is the most common third-party payor: 90% of physicians see Medicare beneficiaries;
- Four out of five physicians are reimbursed less than the amount charged by at least one third-party payor;
- Medicaid is the least generous third-party payor, reimbursing less than one-half of the usual fee; and
- Medicare discounts are high also, exceeding 27%.

The data used in this report were derived from the SMS survey conducted in the second half of 1986. Responses were received from 2863 physicians with an overall response rate of 69.1%. The sampling frame consisted of nonfederal patient care physicians excluding residents. Physicians practicing psychiatry, radiology, anesthesiology and pathology were excluded since questions pertinent to this analysis were not asked of physicians in those specialties. The results reported below are unweighted sample data from survey respondents.

Physician Involvement with Third-Party Payors

Physicians were asked several questions to ascertain their involvement with patients covered by five selected types of third-party payors in the previous 12 months. The categories were: (1) patients whose principal source of payment was Medicare; (2) patients whose principal source of payment was Medicaid; (3) patients covered by preferred provider organization (PPO) contracts; (4) patients covered by IPA plans (in which health maintenance organization patients were treated on a fee-for-service basis); and (5) patients with other health insurance plans which directly reimbursed the physician. In particular, physicians were asked if they provided any services to patients in each category and whether the amount they were reimbursed by all payors was the same as their usual fee or varied by payor. For those who indicated variable reimbursement across payors, the usual reimbursement from each payor was solicited.

Table 1 indicates the percentage of physicians who had patients covered by each type of third-party

Table 1. **Percent of Physicians with Patients Covered by Selected Types of Payors, 1986**[a]

Payor	Percent of Physicians
Medicare	90.1%
Medicaid	84.9
PPO	45.3
IPA	33.3
Other Direct-pay Health Insurance	78.6

Source: See text.

a. Excludes physicians in psychiatry, radiology, anesthesiology, and pathology.

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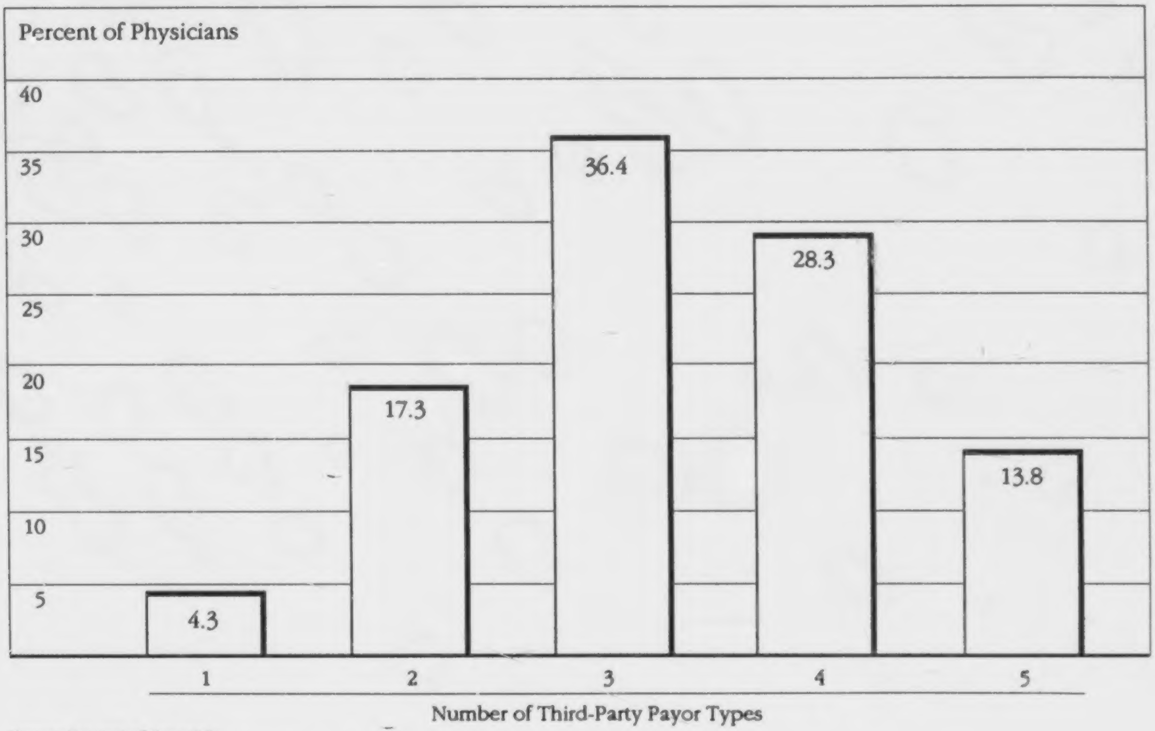
Figure 1. **Distribution of Number of Different Types of Third-Party Payors Per Physician**[a]



Source: See text of the article.

a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

payor. Physicians were most likely to have had Medicare and Medicaid patients, and least likely to have seen those covered by IPA plans. The 90.1% of physicians who report having patients whose principal source of coverage is Medicare is somewhat larger than the share receiving revenues from Medicare, as reported and discussed by Cotter (1987).

The percent of physicians with differing numbers of third-party payor arrangements is displayed in Figure 1. The distribution is roughly bell-shaped. Over one-third of physicians had patients in three third-party payor categories—the most frequently occurring number.

Charges and Reimbursed Amounts

Next, we turn to a discussion of the relationship between fees and reimbursements. For this purpose, attention is focused on the single service which accounts for the largest share of physician revenues — established patient office visits. Overall, the average charge was $29.08. However, the average charge differed between physicians who were ultimately reimbursed for the full fee and physicians who received a lesser amount. Table 2 indicates that 83.2% of physicians were reimbursed a lesser amount than their typical fee by at least one third-party payor. This difference is partly explained by the fact that those who received less-than-full reimbursement tended to charge a higher fee — $1.39 higher on average.

One would expect that the more different types of third-party payors a physician had, the more likely it is that reimbursements would differ from each other and from the billed amount. This expectation is borne out in the data. Only 57% of physicians with only one type of third-party payor were reimbursed less than their usual charge. The percentage with varying reimbursement increases steadily with the number of payors dealt with, up to 91% for physicians dealing with all five third-party payor types.

Table 2. **Fees for Established Patient Office Visits Physicians With and Without Varying Reimbursements from Third-Party Payors**[a]

Relationship of Third-Party Reimbursement to Usual Fee	Percent of Physicians	Mean Usual Fee
Same	16.8%	$27.92
Different	83.2	29.31

Source: See text.
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Table 3. **Mean Usual Fee and Third-Party Reimbursements for Established Patient Office Visits Among Physicians with Varying Reimbursement**[a]

	Mean	Standard Deviation	Discount[b]
Usual Fee	$29.31	$10.67	0.0%
Third Party Payor			
Medicare[c]	21.29	7.83	27.4
Medicaid	14.00	6.27	52.2
PPO	25.92	8.83	11.6
IPA	24.21	9.02	17.4
Other direct-pay insurance company	27.22	13.41	7.1

Source: See text.
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.
b. Percentage difference below mean usual fee.
c. Reflects Medicare reasonable charge, including patient copayments.

How far did reimbursed amounts fall below the usual charge? This question is answered in Table 3 for physicians who indicated varying reimbursements. Reimbursements varied widely among third-party payor types. Direct-pay health insurance companies provided the most generous reimbursements with a "discount" from the usual fee of about 7%. (Recall that discounting applied to 83% of physicians; the remainder received full reimbursement from all third-party payors.) Medicare and Medicaid have been shown (Table 1) to be the two most common patient types. Table 3 indicates that Medicare and Medicaid provided the least generous reimbursements. Medicaid, in particular, paid less than half of the physician's typical fee.

Summary

A substantial number of physician services are reimbursed through third-party payors. Over three-fourths of the physicians surveyed in 1986 reported dealing with three or more different types of third-party payors when seeing established patients during office visits. The typical charge for an established patient office visit was slightly less than $30. A high percentage of physicians received a reimbursement less than what they charged. The reimbursed amount varied considerably across third-party payor types. Commercial insurance carriers discounted the least and Medicaid discounted the most.

The findings have implications for provider incentives regarding the supply of services. While physicians take into account factors in addition to price in filling their appointments, the reimbursement differentials suggest the degree of difficulty Medicaid and Medicare beneficiaries may encounter in obtaining services. As others have noted (Rodgers and Musacchio 1983; Held and Holahan 1985), deep discounts tend to exacerbate access problems for the aged, disabled and poor populations covered by Medicare and Medicaid. The differentials further indicate the magnitude of the gap that federal policy makers need to close in order to fulfill the promise of access to mainstream health care for the nation's elderly, poor and disabled citizens.

As a final word, it should be noted that the price data pertain to only a single — albeit frequently performed — service provided by a subset of physicians. Extension of the implications to other services and providers should be made with caution.

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Physician Responses to Competition, 1980 - 1987

by David W. Emmons

Since 1970, physicians have found themselves practicing medicine in an increasingly competitive environment. This increase in competition has resulted from a number of factors beyond the control of any individual physician. Principal among those factors have been:

- growth in the number of active physicians relative to the general population;
- increasing awareness of health care costs both in the private and public sectors; and
- the emergence and growth of new modes of health care delivery (HMOs, PPOs, etc.) designed to contain health care expenditures.

Current projections call for continued growth in the supply of physicians relative to the population at large (Kletke, et al., 1987). Continued growth in the number and extent of the new, or alternative, modes of health care delivery is also expected.

This paper examines physicians' responses to the growth in competition between 1980 and 1987. It finds that:

- The percent of physicians working evening/weekend office hours rose from 39.0% in 1980, and 38.0% in 1982, to 81.1% in 1987.
- The percent of physicians having advertised their practices in the preceding five years (through newspapers, magazines, television or radio) increased from 8.7% in 1982 to 19.5% in 1987. The greatest part of the increase was the result of newspaper and magazine advertising.
- In contrast, the percent of physicians making housecalls fell from 30.8% in 1980, and 26.9% in 1982, to 11.6% in 1987.

The results also show that young physicians are more likely than older physicians to be engaging in each of the types of competitive responses mentioned above, i.e., working evening/weekend office hours, making housecalls and advertising their practices.

The paper is based on information from the 1982 fourth quarter and 1987 core Socioeconomic Monitoring System (SMS) surveys. The 1982 survey included interviews with 1,215 physicians. It included a series of questions designed to detect changes in physician practice services between 1980 and 1982, and a series of questions to determine the marketing strategies that physicians had employed in the previous five years. The 1987 survey included interviews with 4,014 physicians. The surveys were administered to samples representative of the population of non-federal patient care physicians excluding residents. The statistics reported in this paper are unweighted sample data from survey respondents.

To facilitate interpretation of the data, the target physician populations of the questions on the different surveys were made the same. Accordingly it should be noted that the data on housecalls and evening/weekend hours exclude radiologists, anesthesiologists and pathologists. The data on advertising excludes the same specialties and physicians who are not full or part owners of their main practice.

The Nature of Competitive Responses

Individual physicians might reasonably be expected to adapt to the increasing competitiveness of the health care market in any of the following ways:

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Table 1. **Distribution of Physicians with Selected Practice Services 1980-1987**[a]

	1980	1982	1987
Housecalls per Week			
None	69.2%	73.1%	88.4%
1-2	25.7	22.0	8.0
3-5	4.0	3.9	2.7
6 or more	1.1	0.9	.9
Evening/Weekend Hours per Week			
None	61.0	62.0	18.9
1-4	24.1	25.2	35.2
5-10	9.6	7.1	24.3
11 or more	5.4	5.7	21.6

Source: See text.

a. Data exclude radiologists, anesthesiologists and pathologists.

- increasing participation in alternative delivery systems;
- increasing the number of housecalls made;
- increasing office hours worked on evenings and weekends; and
- advertising in newspapers, magazine, on the radio or on television.

An explanation of each of these potential responses to competition is provided below. The focus of the empirical results presented in this paper is on the last three adjustments to competition.

Individual firms providing alternative health care delivery claim to be able to effect an increase in physicians' patient volumes by "steering" their patients to physicians who participate in their plan. This is accomplished through "lock-in's," wherein services are covered only if provided by (or authorized by) a participating physician, or through economic incentives to their beneficiaries to use physicians on their panel of providers. Although no study has assessed the extent to which participation in these plans affects patient flow, the growth in the ratio of physicians to the general population and in level of beneficiary enrollments in such plans leads one to predict that physicians will respond by increasing their participation in such plans. Emmons (1988) examined evidence on physician participation in alternative delivery systems between 1983 and 1986 and found this to be the case.

The rationale for increasing the number of housecalls and the number of evening and weekend office hours is obvious. Each of these increases the convenience to patients of using the physician's services. Accordingly, each could be expected to increase the flow of patients to the physician. There are some differences, however, between the two strategies. Housecalls entail significant costs, costs of travel and time lost in transit that could otherwise be devoted to other patients. A greater variety of services can be provided in the office than can be provided on housecalls, adding to the relative attractiveness of extended office hours over housecalls. Finally, visits during extended office hours may be perceived as entailing lower risk in terms of professional liability due to the presence of support personnel and equipment, and thereby viewed as superior to housecalls.

In addition to altering their practice services, physicians might adapt to increased levels of competition by advertising their practices. Advertising was not commonplace among physicians in the past. While some forms of advertising have now become nearly universal among physicians (e.g., a listing in the Yellow Pages), others have still failed to gain significant popularity (e.g., advertising on television). One source of such differences is the varing costs associated with different media. Another reason, undoubtedly, has to do with the difficulty of assessing whether the gains from an advertisement outweigh its cost.

Trends in Competitive Responses

Table 1 provides distributional information on housecalls and evening weekend hours for the years 1980, 1982 and 1987. The results indicate that the proportion of physicians making housecalls fell between 1980 and 1982 from 30.8% to 26.9%. It continued to fall between 1982 and 1987. In 1987, only 11.6% of physicians indicated making housecalls. Among those physicians who do make housecalls, most make only one or two per week. This suggests that other factors have been offsetting the direct influence of competition on housecalls. For example, increased availability of alternative sites for health care delivery and expanded home health care alternatives may have caused the demand for housecalls by physicians to decline.

A very different phenomenon is observed in looking at physicians' evening and weekend office hours.

While the proportion offering such hours declined by one percentage point between 1980 and 1982 (from 39.0% to 38.0%) it more than doubled between 1982 and 1987. In 1987, 81.1% of physicians indicated working evening or weekend hours in the office. Nearly 22% indicated working more than ten hours per week during the evening or weekend.

Changes in physician newspaper, magazine, television and radio advertising are shown in Table 2. The proportion of physicians indicating that they had advertised their practice in one of the four media listed during the previous five years more than doubled between 1982 and 1987. Specifically, the proportion of physicians who reported having advertised in a newspaper or magazine, or on television or radio, rose from 8.7% in 1982 to 19.5% in 1987. Although more detailed information is unavailable for 1982, Table 2 provides a further breakout on advertising behavior for 1987. In particular it shows that the greatest portion of the 19.5% figure for 1987 is the result of advertising in newspapers and magazines (18.4% of physicians) as opposed to television and radio (5.3% of physicians).

Table 2. **Practice Advertising in the Previous Five Years, 1982 and 1987**[a]

	1982	1987
Newspaper or Magazine	b	18.4%
Television or Radio	b	5.3
Newspaper, Magazine, Television or Radio	8.7%	19.5

Source: See text.

a. The data exclude radiologists, anesthesiologists, pathologists and physicians without full or part ownership in their practice.

b. Not asked separately.

Competitive Responses in 1987 by Physician Characteristic

The data in Tables 1 and 2 were presented at their most aggregate level. However, one can anticipate differences in response for the behaviors examined if one were to analyze them separately according to, say, age or specialty. For example, older physicians might be expected to have more firmly established practices and thus be less compelled to engage in competitive behaviors. Differences in services provided and equipment needs by specialty could be expected to result in differences in the likelihood of physicians making housecalls. For this reason, Table 3 presents 1987 data on the percent of physicians who have engaged in the types of competitive behaviors discussed above broken out by age, region, specialty and location.

Regional differences in physicians' competitive behaviors are small. The percent of physicians working evening or weekend office hours only ranges from 79.1% in the West to 83.4% in the North Central region. Physicians making housecalls are most common in the Northeast (14.5%) and least common in the West (9.9%). Physicians in the North Central region are most likely to have advertised through newspapers or magazines (19.3%) and on television or radio (7.4%). Advertising in newspapers and magazines was least common in the West (16.4%); advertising on television and radio was least common in the Northeast (3.2%).

Despite the relatively low degree of variation in competitive behavior among the four regions, it is tempting to use the results to assess the relative competitiveness of the markets for medical care in the West and North Central regions. The West has the lowest figures for three of the four competitive behaviors examined and the North Central states have the highest levels for three behaviors. As noted in the earlier discussion, however, these behaviors represent only a portion of the range of competitive behaviors available to the physician. Emmons (1988) reports on evidence showing that physician involvement with alternative delivery systems, although substantial in the North Central region, is highest in the West.

The age breakouts show that young physicians are generally more likely to have adopted the four competitive behaviors examined than are older physicians. The percent of physicians working evening/weekend hours decreases with age, from 87.9% for physicians aged 35 and younger to 74.4% for physicians aged 56 and older. The percent of physicians making housecalls is greatest, at 17.4%, among physicians aged 56 and older. With the exception of this group, however, it declines with age—from 12.4% among physicians aged 35 and younger to 9.2% for the 46-55 age group. Physician advertising in newspapers or magazines decreases with age, from 34.3% among the youngest age group to just 10.6% among the oldest. Finally, the percent of physicians advertising on television or radio also declines with age, from 7.7% among physicians aged 35 and younger to 2.7% among those aged 56 or more.

Table 3. **Percent of Physicians Engaging in Competitive Responses**[a]

	Working Evening/ Weekend Hours	Making Housecalls	Advertising Paper/ Magazine	Advertising TV/ Radio
All Physicians	81.1%	11.6%	18.4%	5.3%
Age				
35 or younger	87.9	12.4	34.3	7.7
36 - 45	84.8	8.5	22.8	6.9
46 - 55	80.6	9.2	17.9	5.6
Over 55	74.4	17.4	10.6	2.7
Region				
Northeast	81.0	14.5	18.6	3.2
North Central	83.4	11.3	19.3	7.4
South	80.8	11.0	19.0	4.7
West	79.1	9.9	16.4	6.4
Specialty				
General/Family Practice	84.1	26.9	25.5	6.5
Medical Specialty	84.3	13.2	18.8	5.3
Surgical Specialty	82.2	4.7	16.0	4.3
Other Specialty	70.7	2.8	14.9	6.2
Location				
Rural	87.4	15.9	21.8	5.1
Small Metropolitan	81.1	10.7	19.1	6.6
Large Metropolitan	78.6	10.5	16.4	4.3

Source: See text.

a. Evening/weekend hour and housecalls data exclude radiologists, anesthesiologists and pathologists. Advertising data exclude radiologists, anesthesiologists, pathologists and physicians without full or part ownership in their practice.

Table 3 also provides data on competitive behavior in 1987 by broad specialty groupings. The percent of physicians working evening and weekend office hours is approximately the same among general/family practitioners (84.2%), medical specialists (84.3%) and surgical specialists (82.2%). Only 70.7% of physicians in other specialties indicated working extended office hours. Differences in services provided and equipment requirements undoubtedly account for specialty differences in the percent of physicians making housecalls in Table 3. General/family practitioners most commonly make housecalls (26.9%). Surgical and "other" specialists are least likely to make housecalls - 4.7% and 2.8%, respectively. Advertising in newspapers or magazines (25.5%) and advertising on television or radio (6.5%) are also most common among general/family practitioners. The greater use of advertising among this group may be explained by the fact that patient volume in general/family practice is less a function of referrals than in the other specialty groups.

Differences in 1987 in physicians' competitive behaviors by location may also be found in Table 3. Rural physicians (15.9%) are more likely than urban physicians (about 10.6%) to make housecalls. This difference is somewhat surprising in light of our earlier analysis. Because travel distances for housecalls are apt to be greater in rural areas, both direct travel costs (gas, etc.) and indirect travel costs (lost time to spend with other patients) are greater. Accordingly, housecalls might be expected to be less attractive to rural physicians than they are to urban physicians. Locational differences in opportunities to participate in alternative delivery systems may provide the explanation for the observed difference. Emmons (1988) notes that physician participation in such plans is lowest in rural areas.

A greater percent of rural physicians (87.4%) also work extended office hours than either physicians in small metropolitan areas (81.1%) or physicians in large metropolitan areas (78.6%). A similar ranking of regions is found for newspaper and magazine advertising. Approximately 22% of rural physicians have run such an ad in the last five years as compared with only 16.4% of urban physicians. Physicians in small metropolitan areas (6.6%) have most commonly advertised on television or radio in the last five years.

Summary

Evidence on competitive behaviors in 1980, 1982 and 1987 have been analyzed to discern physicians' responses to the growth in competition that occurred between 1980 and 1987. We began by looking at selected practice services. The data examined show that the percent of physicians working evening and weekend office hours increased during the period of study and that the average number of extended office hours worked also increased. The data also show that physicians have not embraced housecalls as a viable response to competition. In fact, the share of physicians making housecalls fell from 1980 to 1987.

Physician advertising through television, radio, newspapers or magazines was the second area analyzed. Data for 1982 and 1987 indicate the percent of physicians advertising more than doubled during that period. The 1987 data further show that physician advertising in newspapers and magazines accounts for the largest portion of the increase.

Finally, physicians' competitive behaviors in 1987 were examined more closely to assess the degree of universality of the aggregate level findings. The data showed that age, specialty and location are associated with differences in physicians' choices among the alternative competitive behaviors. Regional variations are not readily apparent.

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Medical Professional Liability Premiums and Claims

by Martin L. Gonzalez

Medical professional liability continues to be of great concern to physicians and policymakers. A comparison of physicians' claims experiences in 1985 and 1986 indicates a decline in claims per physician in the last year. However, professional liability insurance premiums continue to rise. In this study, recent trends in both claims and premiums across specialties and geographic regions are examined. Specific findings of the analysis include the following:

- The average annual rate of claims declined from 10.2 per 100 physicians in 1985 to 9.2 per 100 in 1986. While 8.5% of physicians were sued at least once in 1985, 7.6% were sued in 1986.
- The claims rate dropped in all specialty groups, except general/family practice, and in all regions of the country. The largest declines occurred among surgical specialists and physicians in the North Central region.
- Professional liability insurance premiums averaged $12,800 in 1986. Among surgical specialists, the average was $23,800. Since 1982, premiums have increased at an average annual rate of 21.9% for all physicians and 26.8% among physicians in surgical specialties.
- When adjusted for inflation, about one-sixth of increased revenues of the average self-employed physicians from 1982 to 1986 were used to pay for higher premiums. This suggests the important role of professional liability in contributing to increased expenditures on physicians' services.

The information included in this paper is derived from the 1983 to 1986 AMA Socioeconomic Monitoring System (SMS) core surveys of nonfederal patient care physicians, excluding residents. For purposes of this study, information reported by respondents to the surveys was weighted to correct for survey nonresponse. This may cause some information to differ from previously reported results from SMS surveys relating to professional liability.

Trends in Professional Liability Claims

A comparison of claims per 100 physicians in 1985 and 1986 indicates that overall physicians experienced slightly fewer claims in 1986. However, larger changes occurred within some specialties. Table 1 indicates that the rate of claims per 100 physicians declined by 9.8% from 10.2 in 1985 to 9.2 in 1986. A decline in the rate of claims was also reported for this period by the St. Paul Fire and Marine Insurance Company (1987) among physicians it insures.

Table 1. **Annual Claims per 100 Physicians by Specialty Group and Census Region, 1985 and 1986**

	1985	1986	Percent Change
All Physicians	10.2	9.2	–9.8%
Specialty			
General/Family Practice	5.7	7.6	33.3
Medical Specialties	6.4	5.8	–9.4
Surgical Specialties	19.0	15.2	–20.0
Other Specialties	8.0	7.8	–2.5
Census Region			
Northeast	12.3	12.0	–2.4
North Central	12.2	9.7	–20.5
South	8.4	7.8	–7.1
West	8.5	7.9	–7.1

Source: See text of article.

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Among the major specialty groups, the claims rate declined by 20.0% among surgeons. More moderate declines were experienced by physicians in the medical and other specialty groups. As an exception to the general pattern of decreases, the rate of claims increased by 33.3% among general/family practitioners. The pattern of a decline in claims occurred in all major regions of the country, led by the North Central region where the claims rate dropped by 20.5%. In all other regions, the decrease was under ten percent.

The decline in claims should not necessarily be regarded as a reversal of the increasing trend of claims in recent years. Instead, it may simply reflect an artificially high claims rate in 1985 due to an acceleration of claims filing out of concern that tort reforms might preclude some claims in the future. Furthermore, the claims rate is still somewhat higher than prior to 1985. As reported by Gonzalez (1986), the annual claims from 1981 to 1984 averaged 8.2 per 100 physicians.

The incidence of liability claims is not confined to a small portion of the physician population. As Table 2 indicates, 36.7% of all physicians have had at least one claim against them in their career. Over one-half of physicians in surgical specialties incurred a claim during their careers. This compares with about one in three physicians in other specialty groups. The share of physicians who have been sued is similar across all regions.

Changes from 1985 to 1986 in the share of physicians with a claim filed against them in the last year paralleled changes in the claims rate. The percent of physicians sued decreased from 8.5% in 1985 to 7.6% in 1986. However, the 1986 figure indicates that one in every five physicians who have ever been sued in their career were sued in the last year.

Decreases in the likelihood of a claim occurred for all specialty groups, except general/family practice, and in all regions. The sharpest decline in the percent of physicians sued during the year was among surgical specialists. Nonetheless, the 11.9% of surgical specialists sued in 1986 indicates that physicians in this group continue to have a greater probability of having a claim filed against them than physicians in any other specialty group. The region where the probability of a claim was highest was the Northeast in both 1985 and 1986.

Table 2. **Percent of Physicians Sued in Last Lear (1985 and 1986) and in their Career by Specialty Group and Census Region**

	Percent Sued in Last Year		Percent Sued in their Career as of 1986
	1985	1986	
All Physicians	8.5%	7.6%	36.7%
Specialty Group			
General/Family Practice	5.5	6.3	34.9
Medical Specialties	5.7	5.0	29.0
Surgical Specialties	15.1	11.9	51.9
Other Specialties	6.7	6.9	31.0
Census Region			
Northeast	10.4	9.6	39.5
North Central	9.6	8.2	36.6
South	7.3	6.6	34.0
West	7.3	6.5	38.0

Source: See text of article.

Trends in Professional Liability Insurance Premiums

Average premiums paid by self-employed physicians from 1982 to 1986 are shown in Table 3. Premiums rose at a 21.9% annual rate during this period from $5,800 in 1982 to $12,800 in 1986. In contrast, the average annual rate of inflation was 3.2% and total practice revenues increased by 7.6% annually over the same period. According to St. Paul Insurance (1987), premiums have continued to increase in spite of the decline in the claims rate because growth in costs per claim remains on an upward trend.

The increase in premiums has been a major factor contributing to growth in expenditures on physicians' services. From 1982 to 1986, 16.4% of the average increase in revenues of self-employed physicians adjusted for inflation were devoted to higher premium expenses. The more rapid rate of increase in premiums relative to revenues has caused the share of revenues devoted to paying professional liability insurance premiums to increase from 3.1% in 1982 to 5.1% in 1986.

Across specialty groups and regions, there is some variation in average premium levels (see Table 4). These differences in average premiums tend to

Table 3. **Average Professional Liability Insurance Premiums Paid and Total Practice Revenues of Self-Employed Physicians, 1982-1986**

	Insurance Premiums Paid[a]	Total Practice Revenues[a]	Premiums As Percent of Revenues
1982	$5.8	$186.0	3.1%
1983	6.9	199.3	3.5
1984	8.4	212.2	4.0
1985	10.5	226.8	4.6
1986	12.8	249.5	5.1
1986 net of inflation (i.e., in 1982 dollars)	11.3	219.6	5.1
Amount of Increase			
1982-86	$7.0	$63.5	11.0%
1982-86 net of inflation	5.5	33.6	16.4
Annual Percent Increase			
1982-86	21.9%	7.6%	–
1982-86 net of inflation	18.1	4.2	–

Source: See text of article.

a. In thousands of dollars.

mirror differences in claims rates. However, the parallelism is not complete since premiums are affected by the severity of claims and other factors in addition to claims rates.

Surgical specialists paid, on average, the highest premiums ($23,200) and medical specialists the lowest ($6,900) among the specialty groups in 1986. While surgeons also had the highest rate of increase in average premiums in 1986 (26.8%), this followed an increase that was slightly lower than the average for all physicians in 1985. The lowest rate of increase in average premiums in 1986 was among general and family practitioners (7.4%); however, these physicians experienced an extraordinary 47.8% increase in 1985.

Average premiums are highest in the Northeast ($13,800) and lowest in the South ($11,800). In both 1985 and 1986, premiums grew most rapidly in the North Central states so that average premiums in this region are now approaching those in the Northeast.

The average premium statistics in Table 4 mask significant differences within specialty groups and regions. More detailed breakdowns of average premiums by specialty and geographic area are provided in Gonzalez and Emmons (1987, Detailed Statistics Table 40).

Table 4. **Average Professional Liability Insurance Premiums Paid by Self-Employed Physicians, 1984-1986**

	Average Premiums (in thousands of dollars)			Percent Increase	
	1984	1985	1986	1984-85	1985-86
All Physicians	$8.4	$10.5	$12.8	25.0%	21.9%
Specialty Group					
General/Family Practice	4.6	6.8	7.3	47.8	7.4
Medical Specialties	4.5	5.6	6.9	24.4	23.2
Surgical Specialties	14.8	18.3	23.2	23.6	26.8
Other Specialties	6.5	7.7	9.4	18.5	22.1
Census Region					
Northeast	9.5	12.1	13.8	27.4	14.0
North Central	7.7	10.5	13.5	36.4	28.6
South	7.4	9.6	11.8	29.7	22.9
West	9.3	10.3	12.6	10.8	22.3

Source: See text of article.

Summary

The results of this analysis indicate a decline in the rate of claims experienced by physicians in 1986. However, professional liability is still a problem for many physicians. Over one in three physicians have incurred a claim in their career. Furthermore, average annual premium increases have exceeded inflation by over ten percentage points in all specialties since 1982. Finally, liability insurance premium increases have been responsible for a major share of increased expenditures on physicians' services in the last several years. From 1982 to 1986, one-sixth of increased physician gross revenues adjusted for inflation have been devoted to paying higher premiums.

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Socioeconomic
Characteristics of
Medical Practice
1987

Detailed Statistics

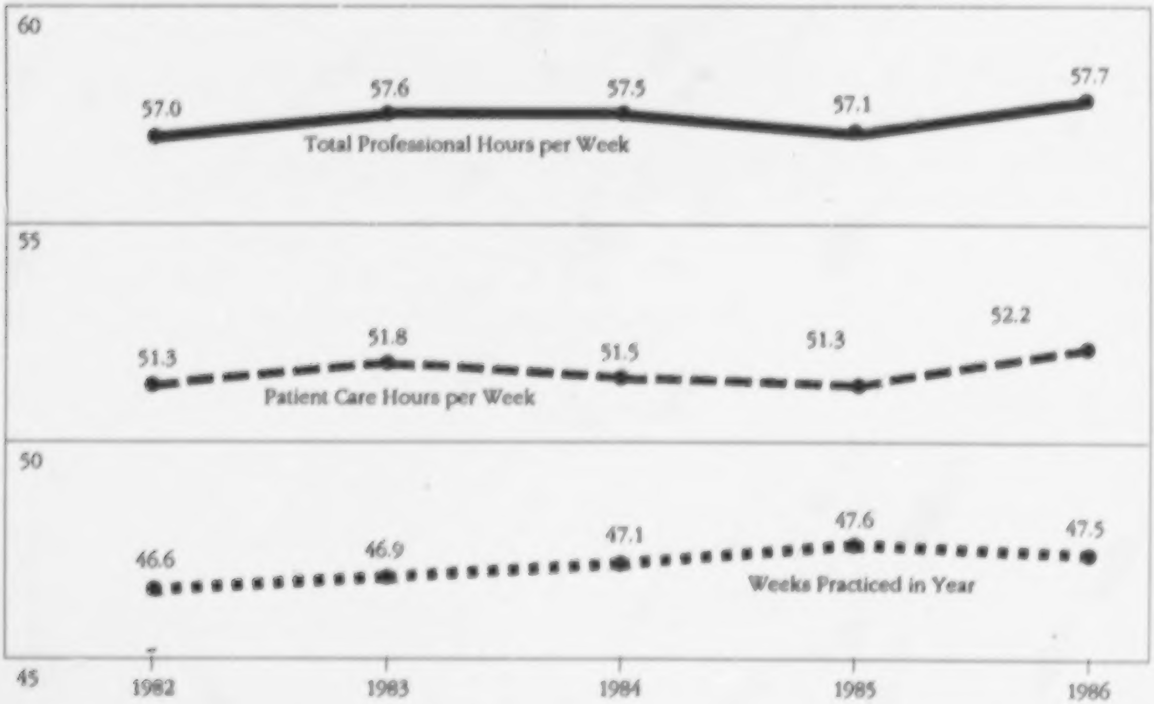
Weeks and Hours of Practice
Utilization of Physician Services
Hospital Utilization by Physicians
Fees for Physician Visits
Professional Expenses of Physicians
Physician Net Income After Expenses Before Taxes

Weeks and Hours of Practice

The time spent in practice by physicians is measured in weeks per year and hours per week. Three measures of total hours in practice can be distinguished. Total professional hours combines hours in patient care with those in other professional activities, such as teaching, research and administration. Hours in patient care activities excludes other professional hours. Direct patient care hours includes only time spent directly seeing patients; time spent in patient-related activities, such as interpreting tests and telephone contacts with patients and their families, is excluded. Direct patient care hours are allocated by activity into hours spent seeing patients in the office, on hospital rounds, in surgery (operating and delivery rooms) and in other settings.

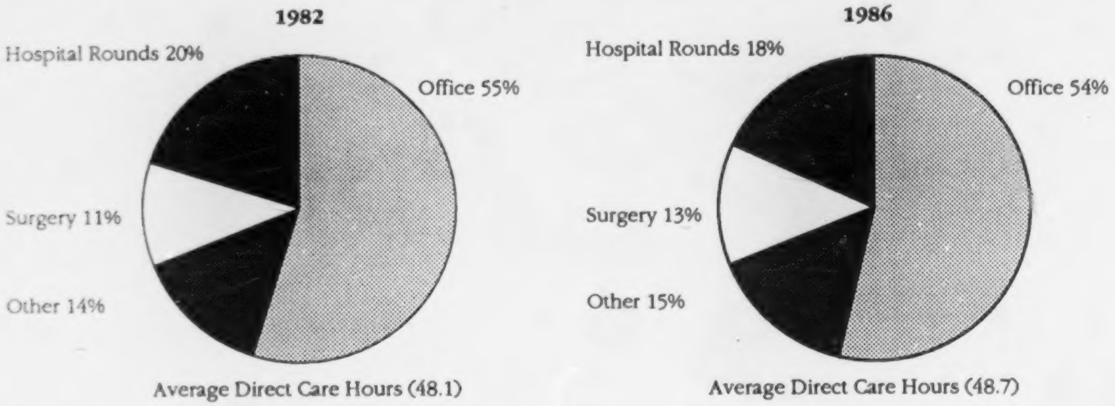
Figures 1 and 2 indicate that average weeks of practice per year, hours per week and the allocation of direct patient care hours by activity were relatively stable from 1982 to 1986. Significant variations in average direct patient care hours and their allocation in 1986 by specialty are shown in Figure 3.

Figure 1. **Average Weeks and Hours per Week of Practice by All Physicians, 1982-1986**



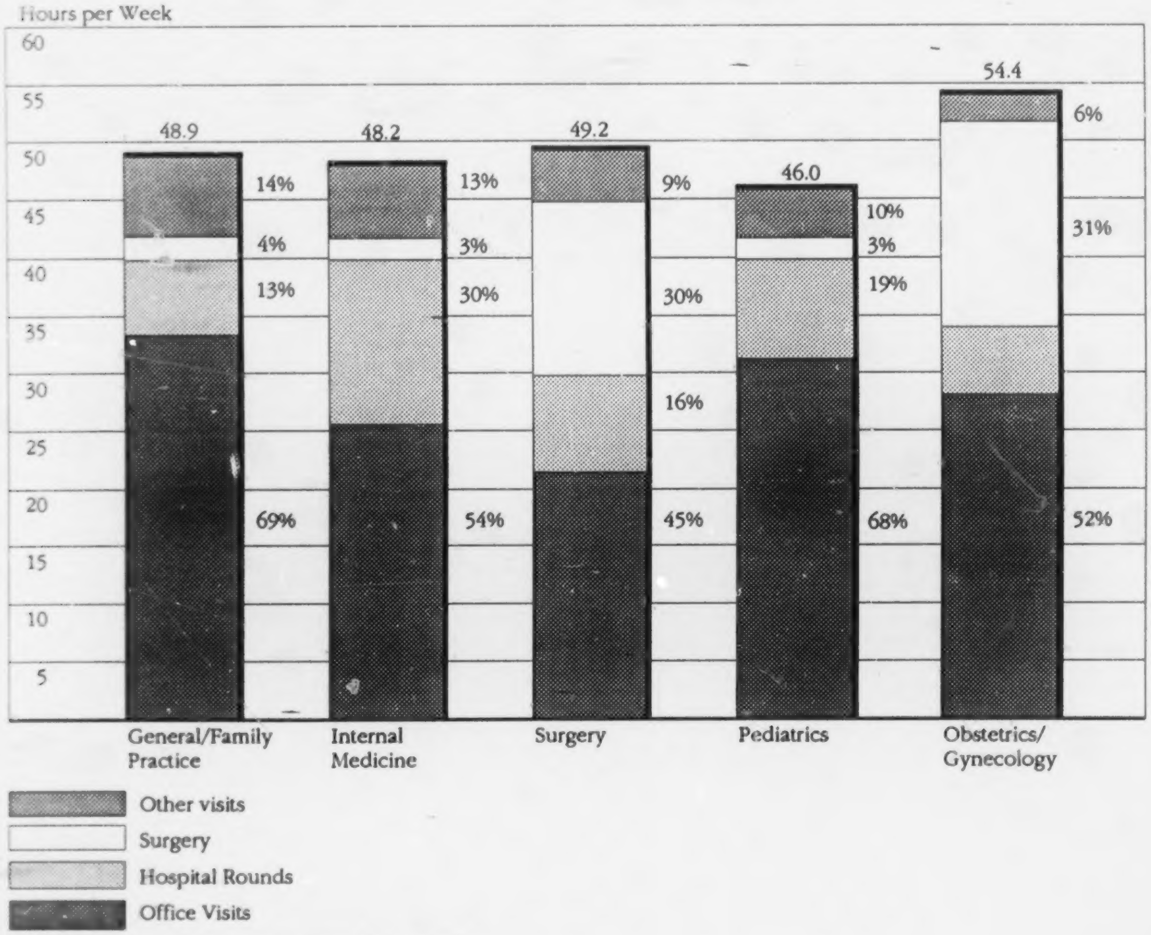
Source: AMA Socioeconomic Monitoring System 1982-1986 core surveys.

Figure 2. **Distribution of Average Direct Patient Care Hours per Week of All Physicians, 1982 and 1986[a]**



Source: AMA Socioeconomic Monitoring System 1982 and 1986 core surveys
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology

Figure 3. **Distribution of Average Direct Patient Care Hours per Week by Specialty, 1986[a]**



Source: AMA Socioeconomic Monitoring System 1986 core survey.
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Table 1. **Mean Number of Weeks Practiced, 1986**[a]

		Specialty									
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	47.5	48.3	47.9	47.1	47.8	47.6	45.6	47.6	46.3	47.4
Census Division										
New England	46.8	46.1	47.7	46.2	.	.	.	47.0	.	.
Middle Atlantic	47.2	48.4	47.8	46.9	48.0	45.5	46.1	47.6	46.2	47.2
East North Central	47.2	47.7	47.6	46.9	47.7	47.4	45.0	48.2	45.8	46.9
West North Central	47.5	48.2	47.9	47.3	.	.	45.7	.	.	.
South Atlantic	48.0	48.4	48.2	47.8	48.0	49.1	45.6	47.5	47.3	48.3
East South Central	48.1	48.9	48.1	47.7	.	.	.	.	.	.
West South Central	48.0	48.9	47.8	47.2	48.7	48.6	46.2	48.0	.	.
Mountain	47.3	48.3	48.6	46.2	.	.	.	.	.	.
Pacific	47.2	48.2	47.8	46.9	47.2	47.2	45.3	47.6	45.8	.
Type of Practice										
Solo	48.1	48.9	48.5	47.4	48.7	48.8	.	47.7	46.4	.
Non-solo	47.1	47.6	47.5	46.8	47.4	46.5	45.5	47.4	46.3	47.3
Location										
Nonmetropolitan	48.1	48.6	47.9	47.4	48.4	49.6	46.6	.	.	.
Metropolitan—										
Less than 1,000,000	47.4	48.0	48.0	46.8	47.8	48.1	45.3	47.7	46.3	47.3
1,000,000 and over	47.4	48.3	47.8	47.3	47.7	46.9	45.7	47.5	46.3	47.2
Employment Status										
Self-employed	47.6	48.5	47.9	47.1	48.1	48.2	45.2	47.7	45.9	47.1
Employee	47.2	47.5	47.7	46.9	47.3	44.8	46.4	47.3	47.3	47.6
Physician Age										
Less than 36 years	47.6	47.8	48.4	46.4	47.8	47.7	45.8	.	46.8	.
36-45 years	47.6	48.4	47.9	47.3	47.9	48.1	45.7	47.8	45.9	47.3
46-55 years	47.2	48.0	47.9	47.0	48.1	46.3	45.7	47.4	46.3	47.4
56-65 years	47.4	48.2	47.4	46.9	46.9	48.3	44.8	47.6	46.8	47.4
66 or more years	47.9	48.9	47.3	47.6	.	.	.	47.7	.	.

Source: 1987 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 1 (continued). **Standard Error of the Mean Number of Weeks Practiced, 1986[a]**

	Specialty									
	All Physicians[a]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	0.05	0.15	0.12	0.12	0.14	0.26	0.18	0.15	0.19	0.15
Census Division										
New England	0.25	1.93	0.27	0.48	.	.	.	0.52	.	.
Middle Atlantic	0.15	0.31	0.26	0.32	0.23	1.09	0.37	0.24	0.45	0.37
East North Central	0.13	0.40	0.44	0.21	0.26	0.54	0.41	0.30	0.41	0.35
West North Central	0.17	0.29	0.31	0.33	.	.	0.72	.	.	.
South Atlantic	0.11	0.43	0.27	0.17	0.28	0.26	0.38	0.31	0.42	0.26
East South Central	0.18	0.29	0.37	0.41	.	.	.	.	.	.
West South Central	0.13	0.23	0.29	0.34	0.36	0.36	0.51	0.40	.	.
Mountain	0.25	0.55	0.52	0.71	.	.	.	.	.	.
Pacific	0.15	0.29	0.25	0.43	0.34	0.42	0.40	0.51	0.47	.
Type of Practice										
Solo	0.08	0.16	0.17	0.18	0.21	0.17	.	0.20	0.37	.
Non-solo	0.07	0.25	0.16	0.16	0.17	0.45	0.18	0.24	0.22	0.15
Location										
Nonmetropolitan	0.13	0.17	0.30	0.35	0.34	0.43	0.73	.	.	.
Metropolitan—										
Less than 1,000,000	0.08	0.29	0.14	0.20	0.20	0.22	0.23	0.25	0.26	0.20
1,000,000 and over	0.08	0.20	0.19	0.15	0.21	0.47	0.28	0.20	0.27	0.25
Employment Status										
Self-employed	0.06	0.15	0.14	0.13	0.14	0.16	0.22	0.18	0.24	0.20
Employee	0.11	0.41	0.17	0.28	0.27	1.44	0.28	0.29	0.28	0.21
Physician Age										
Less than 36 years	0.17	0.44	0.28	0.71	0.49	0.62	0.55	.	0.36	.
36-45 years	0.08	0.18	0.21	0.15	0.17	0.25	0.28	0.19	0.29	0.29
46-55 years	0.12	0.49	0.21	0.16	0.21	0.89	0.33	0.33	0.35	0.24
56-65 years	0.12	0.28	0.26	0.34	0.43	0.26	0.44	0.33	0.66	0.31
66 or more years	0.16	0.27	0.32	0.35	.	.	.	0.55	.	.

Table 2. **Mean Number of Weeks Practiced per Year, 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	46.8	47.3	46.7	46.4	46.6	46.9	47.1	47.6	47.5
Specialty									
General/Family Practice	47.1	47.6	47.2	47.2	46.9	47.2	47.6	48.5	48.3
Internal Medicine	46.9	47.2	46.5	46.2	46.7	47.0	47.2	47.8	47.9
Surgery	46.8	47.1	46.5	46.3	46.2	46.9	47.3	47.3	47.1
Pediatrics	47.0	48.1	46.7	46.4	47.2	47.2	47.4	48.0	47.8
Obstetrics/Gynecology	47.4	48.0	47.4	46.5	46.9	47.1	46.9	48.0	47.6
Radiology	46.7	46.5	46.5	46.1	46.2	45.4	45.4	45.4	45.6
Psychiatry	46.9	47.6	46.6	47.1	47.2	47.0	47.1	47.6	47.6
Anesthesiology	45.6	45.4	46.6	45.7	46.1	45.4	45.6	46.4	46.3
Census Division									
New England	46.4	46.8	46.6	46.2	45.9	46.6	47.4	47.0	46.8
Middle Atlantic	46.9	47.3	46.5	46.4	46.7	46.9	46.5	47.7	47.2
East North Central	46.2	47.1	46.4	46.0	46.8	46.6	47.0	47.2	47.2
West North Central	46.8	47.3	47.1	45.9	46.4	45.9	47.3	47.3	47.5
South Atlantic	47.2	47.8	47.3	47.1	46.9	47.0	47.2	47.9	48.0
East South Central	47.5	47.9	47.2	47.0	47.8	48.2	47.6	48.2	48.1
West South Central	47.6	48.0	47.3	47.2	46.5	47.6	47.7	48.2	48.0
Mountain	46.2	47.0	47.0	46.5	46.1	46.2	47.1	47.7	47.3
Pacific	46.9	47.1	46.2	45.8	46.3	46.8	47.1	47.4	47.2
Type of Practice									
Solo	47.0	47.6	47.2	46.7	47.0	47.7	47.7	48.2	48.1
Non-solo	46.6	47.1	46.3	46.1	46.3	46.2	46.6	47.2	47.1
Location									
Nonmetropolitan	46.6	47.7	47.3	46.6	46.8	47.5	47.6	48.3	48.1
Metropolitan—									
Less than 1,000,000	46.8	47.3	47.0	46.7	46.5	46.7	47.1	47.5	47.4
1,000,000 and over	46.9	47.3	46.4	46.1	46.7	46.9	47.0	47.5	47.4
Physician Age									
Less than 36 years	42.5	45.2	43.8	44.3	44.1	44.6	45.0	48.0	47.6
36-45 years	47.4	47.6	47.1	47.0	47.0	47.2	47.5	47.6	47.6
46-55 years	47.9	47.9	47.5	47.1	47.4	47.5	47.7	47.4	47.2
56-65 years	47.4	47.7	47.0	47.0	47.1	47.6	47.4	47.4	47.4
66 or more years	46.2	47.0	46.8	46.0	46.5	46.9	46.5	47.8	47.9

Source: 1982-87, AMA Socioeconomic Monitoring System core surveys. 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 2 (continued). **Standard Error of the Number of Weeks Practiced per Year, 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	0.09	0.08	0.09	0.11	0.11	0.09	0.08	0.05	0.05
Specialty									
General/Family Practice	0.21	0.16	0.21	0.25	0.31	0.25	0.19	0.11	0.15
Internal Medicine	0.24	0.20	0.24	0.34	0.31	0.26	0.26	0.14	0.12
Surgery	0.20	0.16	0.19	0.22	0.25	0.18	0.17	0.10	0.12
Pediatrics	0.38	0.23	0.41	0.44	0.36	0.27	0.30	0.15	0.14
Obstetrics/Gynecology	0.29	0.26	0.24	0.44	0.38	0.30	0.37	0.15	0.26
Radiology	0.41	0.45	0.44	0.23	0.24	0.26	0.29	0.20	0.18
Psychiatry	0.30	0.24	0.30	0.25	0.23	0.29	0.23	0.12	0.15
Anesthesiology	0.52	0.49	0.33	0.31	0.32	0.34	0.26	0.21	0.19
Census Division									
New England	0.39	0.31	0.36	0.41	0.50	0.30	0.27	0.23	0.25
Middle Atlantic	0.20	0.16	0.22	0.26	0.26	0.23	0.25	0.11	0.15
East North Central	0.22	0.18	0.22	0.30	0.22	0.20	0.20	0.14	0.13
West North Central	0.38	0.29	0.29	0.44	0.35	0.39	0.25	0.17	0.17
South Atlantic	0.24	0.20	0.20	0.22	0.27	0.23	0.21	0.11	0.11
East South Central	0.42	0.35	0.43	0.49	0.27	0.25	0.37	0.16	0.18
West South Central	0.28	0.26	0.31	0.36	0.39	0.23	0.24	0.14	0.13
Mountain	0.55	0.36	0.40	0.35	0.47	0.48	0.39	0.19	0.25
Pacific	0.22	0.19	0.24	0.33	0.30	0.22	0.19	0.13	0.15
Type of Practice									
Solo	0.12	0.11	0.12	0.17	0.17	0.12	0.12	0.08	0.08
Non-solo	0.14	0.11	0.13	0.15	0.14	0.13	0.11	0.06	0.07
Location									
Nonmetropolitan	0.34	0.23	0.29	0.38	0.33	0.26	0.24	0.13	0.13
Metropolitan—									
Less than 1,000,000	0.15	0.12	0.13	0.15	0.16	0.13	0.13	0.08	0.08
1,000,000 and over	0.13	0.11	0.14	0.17	0.16	0.13	0.12	0.07	0.08
Physician Age									
Less than 36 years	0.62	0.42	0.45	0.45	0.46	0.38	0.37	0.14	0.17
36-45 years	0.14	0.12	0.16	0.16	0.17	0.14	0.12	0.07	0.08
46-55 years	0.10	0.11	0.14	0.16	0.15	0.11	0.11	0.10	0.12
56-65 years	0.15	0.13	0.17	0.18	0.17	0.13	0.14	0.11	0.12
66 or more years	0.27	0.23	0.22	0.39	0.30	0.30	0.29	0.20	0.16

Table 3. **Mean Number of Hours in Professional Activities per Week, 1986**[a]

		Specialty								
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	57.7	57.9	60.1	58.1	58.3	62.9	55.9	49.2	59.4	50.4
Census Division										
New England	58.0	.	61.1	55.3	.	.	.	50.0	.	.
Middle Atlantic	56.8	53.1	58.6	59.8	58.6	59.0	55.0	52.0	58.6	.
East North Central	57.7	56.5	61.8	59.6	54.3	59.3	51.5	49.9	57.3	54.1
West North Central	57.5	58.8	58.6	56.2	.	.	59.2	.	.	.
South Atlantic	58.2	58.9	62.6	56.6	61.1	62.9	60.0	46.4	59.7	.
East South Central	58.2	58.8	59.1	57.8	.	.	.	.	.	.
West South Central	59.2	62.8	62.7	57.6	63.6	63.9	52.6	43.7	.	.
Mountain	57.8	58.5	58.9	57.8	.	.	.	.	.	.
Pacific	56.8	56.7	56.7	58.9	57.1	66.1	57.0	49.2	54.4	.
Type of Practice										
Solo	57.7	58.1	61.3	56.4	62.8	63.3	55.4	50.6	58.6	.
Non-solo	57.6	57.7	59.2	59.9	56.1	62.5	56.0	47.0	59.7	49.6
Location										
Nonmetropolitan	60.5	62.2	61.7	59.7	65.0	.	50.8	.	.	.
Metropolitan—										
Less than 1,000,000	58.0	58.5	61.7	57.1	59.5	64.5	56.5	48.2	60.4	51.6
1,000,000 and over	56.8	54.0	58.8	58.9	56.0	62.1	56.6	50.0	58.5	48.8
Employment Status										
Self-employed	58.8	59.1	61.5	57.8	61.3	63.5	56.8	51.0	60.2	53.8
Employee	54.5	54.2	56.1	59.9	51.9	58.5	54.1	45.7	56.9	46.6
Physician Age										
Less than 36 years	60.1	59.5	62.7	62.8	61.1	64.7	54.5	47.0	64.8	.
36-45 years	58.9	60.6	60.4	60.1	57.1	66.3	57.5	49.7	60.1	50.7
46-55 years	57.6	55.3	60.4	58.5	60.4	59.3	59.8	50.7	57.7	52.6
56-65 years	56.5	59.2	59.5	54.4	54.9	62.3	52.0	50.8	58.2	48.3
66 or more years	51.4	52.8	51.5	53.3	.	57.7	.	42.1	.	.

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 3 (continued). **Standard Error of the Mean Number of Hours in Professional Activities per Week, 1986**[a]

	All Physicians[a]	Specialty								
		GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	0.28	0.75	0.71	0.67	1.00	1.12	0.89	0.87	1.10	1.05
Census Division										
New England	1.06	.	2.08	2.50	.	.	.	2.22	.	.
Middle Atlantic	0.71	2.09	1.64	2.07	2.48	2.56	2.49	1.78	2.74	.
East North Central	0.71	1.99	1.70	1.75	1.85	3.55	1.62	2.72	2.10	2.08
West North Central	1.01	2.27	2.99	2.49	.	.	2.62	.	.	.
South Atlantic	0.72	1.84	1.71	1.57	2.57	2.82	2.51	2.09	2.56	.
East South Central	1.31	3.85	2.93	2.42	.	.	.	.	.	.
West South Central	0.84	1.93	2.83	1.43	3.85	2.45	2.76	2.47	.	.
Mountain	1.15	2.69	3.20	2.58	.	.	.	.	.	.
Pacific	0.69	1.60	1.76	1.75	2.50	3.19	1.91	2.09	2.36	.
Type of Practice										
Solo	0.46	1.12	1.13	0.90	1.82	1.85	3.15	1.11	2.10	.
Non-solo	0.36	0.99	0.91	0.99	1.17	1.32	0.91	1.38	1.29	1.14
Location										
Nonmetropolitan	0.94	1.52	3.02	2.16	3.74	.	3.01	.	.	.
Metropolitan—										
Less than 1,000,000	0.43	1.16	1.19	0.89	1.55	1.71	1.33	1.50	1.71	1.18
1,000,000 and over	0.41	1.22	0.92	1.09	1.35	1.63	1.28	1.09	1.50	1.89
Employment Status										
Self-employed	0.33	0.86	0.83	0.68	1.12	1.22	1.04	1.05	1.35	1.42
Employee	0.55	1.44	1.31	2.35	1.85	2.53	1.70	1.49	1.72	1.42
Physician Age										
Less than 36 years	0.86	1.65	1.80	3.91	2.58	3.24	3.14	2.85	2.27	.
36-45 years	0.44	1.25	1.01	0.98	1.76	1.66	1.32	1.86	1.87	1.52
46-55 years	0.56	1.63	1.80	1.18	1.80	2.32	1.73	1.65	1.81	1.96
56-65 years	0.69	1.80	1.83	1.54	2.18	3.02	1.52	1.72	3.70	2.41
66 or more years	0.97	2.06	2.29	2.53	.	3.01	.	1.84	.	.

Table 4. **Mean Number of Hours in Professional Activities per Week, 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	57.0	57.6	57.5	57.1	57.7
Specialty					
General/Family Practice	57.8	58.7	57.8	58.6	57.9
Internal Medicine	59.1	60.1	59.7	58.7	60.1
Surgery	56.5	56.1	57.4	56.8	58.1
Pediatrics	56.4	58.5	56.9	56.3	58.3
Obstetrics/Gynecology	58.3	60.6	60.7	61.5	62.9
Radiology	59.4	59.5	56.1	56.2	55.9
Psychiatry	50.5	50.9	51.6	51.1	49.2
Anesthesiology	61.5	61.5	60.2	58.5	59.4
Census Division					
New England	56.4	55.8	56.1	55.7	58.0
Middle Atlantic	55.3	56.8	56.7	56.5	56.8
East North Central	57.6	59.1	58.0	56.5	57.7
West North Central	58.7	57.8	56.6	57.5	57.5
South Atlantic	58.4	56.9	57.9	57.2	58.2
East South Central	58.7	59.1	61.6	61.4	58.2
West South Central	58.0	59.9	59.6	60.1	59.2
Mountain	57.4	57.1	58.2	56.2	57.8
Pacific	55.0	56.4	55.2	55.5	56.8
Type of Practice					
Solo	56.4	57.0	57.4	57.4	57.7
Non-solo	57.6	58.0	57.5	56.8	57.6
Location					
Nonmetropolitan	60.6	59.6	60.2	59.1	60.5
Metropolitan—					
Less than 1,000,000	57.0	58.1	58.1	57.5	58.0
1,000,000 and over	56.3	56.7	56.4	56.3	56.8
Physician Age					
Less than 36 years	59.5	59.0	60.6	58.0	60.1
36-45 years	58.2	58.9	58.7	58.0	58.9
46-55 years	57.3	58.7	58.1	58.0	57.6
56-65 years	55.4	56.4	55.9	56.9	56.5
66 or more years	49.1	47.8	48.9	48.7	51.4

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active nonfederal patient care physicians excluding residents.

[a] Data, other than in the specialty breakdown, include physicians in all specialties. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 4 (continued). **Standard Error of the Mean Number of Hours in Professional Activities per Week, 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	0.28	0.28	0.28	0.26	0.28
Specialty					
General/Family Practice	0.70	0.72	0.73	0.68	0.75
Internal Medicine	0.78	0.73	0.73	0.74	0.71
Surgery	0.55	0.55	0.61	0.58	0.67
Pediatrics	0.91	1.07	1.00	0.95	1.00
Obstetrics/Gynecology	0.98	1.10	1.03	1.10	1.12
Radiology	1.06	1.08	0.96	0.85	0.89
Psychiatry	0.83	0.88	0.90	0.83	0.87
Anesthesiology	1.21	1.22	1.21	0.88	1.10
Census Division					
New England	1.07	1.03	1.11	1.06	1.06
Middle Atlantic	0.69	0.73	0.72	0.66	0.71
East North Central	0.70	0.72	0.74	0.67	0.71
West North Central	0.92	0.98	1.07	0.98	1.01
South Atlantic	0.70	0.64	0.65	0.60	0.72
East South Central	1.22	1.27	1.23	1.20	1.31
West South Central	0.92	0.92	0.81	0.88	0.84
Mountain	1.26	1.14	1.33	1.06	1.15
Pacific	0.72	0.68	0.69	0.61	0.69
Type of Practice					
Solo	0.42	0.44	0.44	0.43	0.46
Non-solo	0.39	0.36	0.37	0.32	0.36
Location					
Nonmetropolitan	0.87	0.84	0.87	0.79	0.94
Metropolitan—					
Less than 1,000,000	0.43	0.42	0.43	0.41	0.43
1,000,000 and over	0.41	0.41	0.41	0.38	0.41
Physician Age					
Less than 36 years	0.94	0.85	0.83	0.74	0.86
36-45 years	0.48	0.48	0.49	0.43	0.44
46-55 years	0.53	0.56	0.57	0.54	0.56
56-65 years	0.62	0.59	0.59	0.58	0.69
66 or more years	0.83	0.84	0.92	0.88	0.97

Table 5. **Mean Number of Hours in Patient Care Activities per Week, 1986**[a]

		Specialty								
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	52.2	53.3	54.0	52.6	52.4	59.0	51.6	43.0	55.0	44.0
Census Division										
New England	51.4	.	52.8	49.4	.	.	.	43.6	.	.
Middle Atlantic	50.9	47.9	52.5	53.2	52.8	54.5	50.7	46.0	52.4	40.6
East North Central	52.4	52.8	55.4	54.7	49.9	56.4	47.6	43.0	53.7	45.8
West North Central	52.3	54.7	52.1	51.1	.	.	54.1	.	.	.
South Atlantic	52.6	54.3	55.7	50.9	53.1	60.4	56.0	39.6	55.0	.
East South Central	52.9	54.3	53.8	52.1	.	.	.	.	.	.
West South Central	54.4	58.7	57.3	52.4	58.1	59.2	49.0	40.3	.	.
Mountain	52.3	53.9	55.2	51.5	.	.	.	.	.	.
Pacific	51.5	51.1	51.7	54.0	51.6	62.2	53.1	42.6	51.5	.
Type of Practice										
Solo	52.5	53.9	55.7	51.1	57.4	59.3	49.3	44.2	53.9	.
Non-solo	51.9	52.7	52.8	54.1	50.0	58.7	52.0	41.1	55.4	42.7
Location										
Nonmetropolitan	55.8	57.5	56.7	54.4	60.4	.	47.0	.	.	.
Metropolitan—										
Less than 1,000,000	53.0	53.7	56.5	52.4	53.7	60.5	52.6	43.3	55.9	44.3
1,000,000 and over	50.7	49.5	52.0	52.5	49.9	58.1	51.7	42.9	54.1	44.1
Employment Status										
Self-employed	53.7	54.6	56.1	52.6	56.5	59.8	52.5	44.8	56.0	47.4
Employee	47.8	49.0	48.1	52.9	43.9	53.3	49.7	39.3	51.7	40.3
Physician Age										
Less than 36 years	55.0	54.7	57.1	58.6	56.3	59.4	50.0	41.7	60.7	.
36-45 years	53.0	55.4	53.9	53.9	51.3	62.4	53.2	42.2	55.8	43.9
46-55 years	52.2	51.1	55.2	53.0	53.8	55.6	54.9	44.1	54.2	47.9
56-65 years	50.9	54.8	52.2	48.7	49.6	58.8	48.5	45.8	51.2	41.0
66 or more years	47.0	48.5	47.4	49.4	.	53.8	.	37.0	.	.

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 5 (continued). **Standard Error of the Mean Number of Hours in Patient Care Activities per Week, 1986[a]**

		Specialty									
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	0.28	0.72	0.72	0.66	1.00	1.14	0.83	0.84	1.13	1.21
Census Division										
New England	1.06	.	1.98	1.92	.	.	.	2.13	.	.
Middle Atlantic	0.70	1.96	1.72	1.95	2.35	2.45	2.36	1.66	2.92	4.50
East North Central	0.72	1.89	1.65	1.87	1.94	3.49	1.58	2.64	2.17	2.38
West North Central	1.01	2.20	3.04	2.46	.	.	1.99	.	.	.
South Atlantic	0.74	1.79	1.87	1.49	2.85	3.60	2.43	2.04	2.49	.
East South Central	1.28	3.52	3.50	2.40	.	.	.	.	.	.
West South Central	0.84	1.94	2.89	1.43	3.75	2.25	2.67	2.18	.	.
Mountain	1.16	2.66	3.01	2.73	.	.	.	.	.	.
Pacific	0.66	1.51	1.67	1.61	2.38	3.02	1.83	1.98	2.38	.
Type of Practice										
Solo	0.45	1.06	1.10	0.90	1.77	1.78	2.68	1.08	2.19	.
Non-solo	0.36	0.98	0.94	0.94	1.19	1.46	0.87	1.32	1.33	1.19
Location										
Nonmetropolitan	0.92	1.50	2.79	2.10	3.63	.	2.73	.	.	.
Metropolitan—										
Less than 1,000,000	0.43	1.12	1.18	0.90	1.57	1.62	1.27	1.50	1.78	1.26
1,000,000 and over	0.41	1.14	0.94	1.04	1.36	1.74	1.18	1.04	1.55	2.34
Employment Status										
Self-employed	0.32	0.82	0.82	0.67	1.08	1.25	0.98	1.03	1.41	1.77
Employee	0.55	1.43	1.35	2.27	1.86	2.24	1.53	1.37	1.69	1.52
Physician Age										
Less than 36 years	0.85	1.65	1.86	3.79	2.64	2.80	2.44	2.74	2.49	.
36-45 years	0.45	1.26	1.05	0.94	1.74	1.88	1.28	1.86	1.88	1.80
46-55 years	0.55	1.62	1.80	1.10	1.81	2.18	1.70	1.54	1.84	2.77
56-65 years	0.68	1.70	1.83	1.44	2.32	3.15	1.37	1.64	3.99	2.29
66 or more years	0.98	1.87	2.15	3.24	.	2.80	.	1.80	.	.

Table 6. **Mean Number of Hours in Patient Care Activities per Week, 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	46.3	45.6	44.8	44.3	51.3	51.8	51.5	51.3	52.2
Specialty									
General/Family Practice	46.1	45.2	44.5	43.7	53.9	54.6	53.3	53.6	53.3
Internal Medicine	48.9	47.8	47.1	47.0	52.8	53.4	53.0	52.4	54.0
Surgery	47.7	48.0	46.5	46.1	51.1	50.7	51.5	51.2	52.6
Pediatrics	44.4	44.0	43.3	43.8	50.3	52.3	51.1	50.6	52.4
Obstetrics/Gynecology	49.0	48.1	47.7	46.2	53.3	55.8	55.7	56.9	59.0
Radiology	44.5	43.9	43.8	41.8	54.1	53.8	50.5	51.5	51.6
Psychiatry	40.9	37.6	39.5	38.1	43.8	44.0	45.2	45.1	43.0
Anesthesiology	46.8	46.8	44.6	46.4	56.4	59.5	54.9	53.5	55.0
Census Division									
New England	45.4	45.0	43.4	42.8	50.6	49.3	49.3	49.4	51.4
Middle Atlantic	45.1	43.8	43.9	42.4	49.3	50.4	50.4	49.8	50.9
East North Central	45.6	45.5	43.8	44.0	51.7	53.0	51.5	50.8	52.4
West North Central	48.2	47.6	46.6	48.1	52.5	52.8	50.9	51.9	52.3
South Atlantic	47.9	45.7	46.3	44.8	52.8	51.2	52.3	51.6	52.6
East South Central	49.2	49.9	47.2	48.7	53.6	54.5	56.3	56.5	52.9
West South Central	49.4	46.9	45.9	45.8	53.4	55.3	54.4	54.5	54.4
Mountain	46.1	48.9	46.1	46.3	52.1	51.5	52.7	51.3	52.3
Pacific	44.6	44.3	43.5	43.0	48.8	50.5	49.0	49.9	51.5
Type of Practice									
Solo	45.4	44.3	44.7	43.5	51.1	52.1	51.9	52.1	52.5
Non-solo	47.2	47.4	44.9	45.0	51.4	51.6	51.1	50.6	51.9
Location									
Nonmetropolitan	48.7	48.2	47.9	47.6	56.5	55.8	56.4	54.5	55.8
Metropolitan—									
Less than 1,000,000	47.7	47.3	45.9	45.2	51.6	52.8	52.1	52.0	53.0
1,000,000 and over	44.6	43.7	43.2	43.0	49.9	50.1	49.9	50.0	50.7
Physician Age									
Less than 36 years	47.5	47.1	47.0	46.4	53.1	53.5	54.1	52.0	55.0
36-45 years	48.1	47.2	46.5	45.9	52.1	52.7	52.4	52.2	53.0
46-55 years	48.0	47.3	46.2	45.7	51.6	52.7	52.0	52.1	52.2
56-65 years	45.5	45.1	43.9	43.4	50.4	51.2	50.4	51.2	50.9
66 or more years	37.4	36.7	36.3	36.9	45.1	43.6	44.1	44.0	47.0

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. 1976, 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 6 (continued). **Standard Error of the Mean Number of Hours in Patient Care Activities per Week, 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	0.21	0.22	0.22	0.21	0.28	0.28	0.28	0.26	0.28
Specialty									
General/Family Practice	0.46	0.47	0.50	0.46	0.69	0.70	0.70	0.66	0.72
Internal Medicine	0.50	0.59	0.53	0.49	0.77	0.77	0.75	0.74	0.72
Surgery	0.42	0.49	0.50	0.46	0.52	0.53	0.59	0.56	0.66
Pediatrics	0.74	0.78	0.76	0.78	0.91	1.06	1.03	0.94	1.00
Obstetrics/Gynecology	0.92	0.87	0.88	0.80	0.96	1.09	1.00	1.05	1.14
Radiology	0.65	0.63	0.71	0.83	0.99	1.05	0.88	0.82	0.83
Psychiatry	0.61	0.73	0.69	0.61	0.82	0.88	0.84	0.82	0.84
Anesthesiology	0.85	1.01	1.15	0.87	1.23	1.19	1.26	0.95	1.13
Census Division									
New England	0.87	0.86	0.81	0.85	1.07	1.08	1.12	1.08	1.06
Middle Atlantic	0.50	0.60	0.57	0.48	0.68	0.74	0.73	0.67	0.70
East North Central	0.47	0.52	0.54	0.51	0.70	0.71	0.69	0.65	0.72
West North Central	0.78	0.77	0.83	0.73	0.91	0.99	1.07	0.96	1.01
South Atlantic	0.56	0.55	0.59	0.51	0.70	0.64	0.66	0.61	0.74
East South Central	0.94	1.00	0.90	0.99	1.19	1.26	1.19	1.21	1.28
West South Central	0.69	0.77	0.78	0.71	0.90	0.91	0.81	0.88	0.84
Mountain	0.87	0.99	0.96	1.04	1.27	1.26	1.31	1.04	1.16
Pacific	0.44	0.49	0.49	0.47	0.68	0.66	0.68	0.61	0.66
Type of Practice									
Solo	0.30	0.31	0.33	0.30	0.40	0.43	0.42	0.42	0.45
Non-solo	0.28	0.31	0.30	0.29	0.39	0.37	0.37	0.33	0.36
Location									
Nonmetropolitan	0.64	0.67	0.67	0.72	0.86	0.82	0.84	0.78	0.92
Metropolitan—									
Less than 1,000,000	0.32	0.36	0.35	0.32	0.43	0.42	0.43	0.41	0.43
1,000,000 and over	0.29	0.31	0.32	0.29	0.40	0.42	0.41	0.38	0.41
Physician Age									
Less than 36 years	0.80	0.79	0.73	0.65	0.92	0.89	0.84	0.75	0.85
36-45 years	0.36	0.41	0.42	0.39	0.47	0.49	0.49	0.44	0.45
46-55 years	0.35	0.40	0.39	0.39	0.53	0.57	0.57	0.53	0.55
56-65 years	0.41	0.45	0.45	0.39	0.62	0.58	0.57	0.57	0.68
66 or more years	0.66	0.62	0.64	0.62	0.79	0.80	0.86	0.86	0.98

Table 7. **Mean Number of Hours in Direct Patient Care Activities per Week, 1986**[a]

	All Physicians[b]	Specialty				
		General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	48.5	48.9	48.2	49.2	46.0	54.4
Census Division						
New England	46.3	.	46.1	45.3	.	.
Middle Atlantic	46.2	43.5	46.2	48.4	45.7	49.9
East North Central	49.0	48.8	49.8	51.1	44.5	53.0
West North Central	48.0	50.5	46.1	48.4	.	.
South Atlantic	49.2	50.1	50.4	47.7	46.4	56.2
East South Central	50.3	50.1	49.5	49.3	.	.
West South Central	50.9	53.8	50.7	49.0	50.2	55.2
Mountain	48.6	49.8	50.3	48.7	.	.
Pacific	48.0	46.7	46.4	50.8	45.7	55.5
Type of Practice						
Solo	48.8	49.4	50.0	47.5	49.6	54.2
Non-solo	48.1	48.4	47.0	50.8	44.3	54.5
Location						
Nonmetropolitan	52.9	53.2	52.2	51.3	54.2	.
Metropolitan—						
Less than 1,000,000	49.3	49.7	50.9	49.1	47.5	56.0
1,000,000 and over	46.6	44.8	46.0	48.8	43.4	53.2
Employment Status						
Self-employed	49.8	50.1	50.4	49.1	49.6	55.0
Employee	44.3	45.1	42.1	49.4	38.6	49.5
Physician Age						
Less than 36 years	51.2	50.7	51.6	55.5	49.4	55.0
36-45 years	49.2	51.0	48.0	50.7	45.2	57.9
46-55 years	48.4	46.7	49.3	49.6	47.5	51.9
56-65 years	47.4	50.4	46.5	45.3	42.9	53.1
66 or more years	43.4	43.8	41.8	44.8	.	47.8

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 7 (continued). **Standard Error of the Mean Number of Hours in Direct Patient Care Activities per Week, 1986[a]**

	All Physicians[b]	Specialty				
		General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.31	0.67	0.68	0.61	0.88	1.06
Census Division						
New England	1.19	.	2.06	1.97	.	.
Middle Atlantic	0.77	1.81	1.62	1.73	1.99	2.39
East North Central	0.80	1.77	1.56	1.67	1.77	3.34
West North Central	1.17	2.12	2.84	2.40	.	.
South Atlantic	0.82	1.68	1.83	1.41	2.59	3.42
East South Central	1.35	3.04	3.31	2.36	.	.
West South Central	0.88	1.79	2.74	1.36	3.03	2.19
Mountain	1.24	2.55	2.83	2.70	.	.
Pacific	0.71	1.38	1.51	1.58	2.00	2.42
Type of Practice						
Solo	0.46	0.96	1.02	0.81	1.56	1.62
Non-solo	0.42	0.92	0.91	0.92	1.05	1.38
Location						
Nonmetropolitan	0.93	1.38	2.68	2.07	2.89	.
Metropolitan—						
Less than 1,000,000	0.46	1.05	1.11	0.81	1.37	1.53
1,000,000 and over	0.46	1.02	0.90	1.00	1.21	1.59
Employment Status						
Self-employed	0.34	0.75	0.77	0.62	0.95	1.16
Employee	0.68	1.38	1.34	2.21	1.63	2.23
Physician Age						
Less than 36 years	0.94	1.56	1.75	3.73	2.20	2.42
36-45 years	0.49	1.18	1.01	0.91	1.53	1.78
46-55 years	0.62	1.48	1.77	1.02	1.55	2.01
56-65 years	0.77	1.61	1.61	1.37	2.35	2.84
66 or more years	0.99	1.64	2.07	2.52	.	2.79

Table 8. **Mean Number of Hours in Direct Patient Care Activities per Week, 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	48.1	48.3	47.9	47.6	48.7
Specialty					
General/Family Practice	50.0	50.2	49.1	49.0	48.9
Internal Medicine	47.8	48.0	47.2	46.7	48.2
Surgery	47.6	47.4	48.1	48.0	49.2
Pediatrics	44.8	46.2	45.0	44.6	46.0
Obstetrics/Gynecology	49.2	51.4	50.8	52.6	54.4
Census Division					
New England	48.0	46.0	45.8	45.2	47.0
Middle Atlantic	45.4	46.6	46.8	45.9	46.4
East North Central	48.2	49.3	47.0	46.4	49.2
West North Central	50.1	49.1	47.8	47.8	48.1
South Atlantic	49.4	47.8	48.9	48.1	49.5
East South Central	49.9	51.7	53.6	53.0	50.1
West South Central	50.5	52.2	51.0	50.6	51.1
Mountain	49.8	48.2	48.6	48.4	49.6
Pacific	45.9	46.5	45.6	46.6	48.1
Type of Practice					
Solo	47.8	48.5	48.1	48.3	49.0
Non-solo	48.4	48.2	47.8	46.9	48.5
Location					
Nonmetropolitan	54.0	52.8	53.6	51.2	52.8
Metropolitan—					
Less than 1,000,000	48.7	49.4	48.8	48.5	49.6
1,000,000 and over	46.3	46.1	45.8	46.0	46.9
Physician Age					
Less than 36 years	49.7	50.2	50.1	48.2	51.6
36-45 years	48.7	49.1	48.9	48.5	49.4
46-55 years	48.7	49.2	49.1	48.3	48.6
56-65 years	47.5	47.9	46.5	47.5	47.5
66 or more years	41.9	39.8	39.8	40.5	43.6

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active nonfederal patient care physicians excluding residents.

[a] Data, other than in the specialty breakdown, include physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 8 (continued). **Standard Error of the Mean Number of Hours in Direct Patient Care Activities per Week, 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	0.30	0.29	0.30	0.28	0.30
Specialty					
General/Family Practice	0.66	0.65	0.66	0.60	0.67
Internal Medicine	0.73	0.72	0.71	0.69	0.68
Surgery	0.49	0.50	0.56	0.53	0.61
Pediatrics	0.82	0.99	0.96	0.85	0.88
Obstetrics/Gynecology	0.90	1.03	0.91	0.98	1.06
Census Division					
New England	1.18	1.05	1.27	1.22	1.25
Middle Atlantic	0.74	0.81	0.81	0.71	0.74
East North Central	0.73	0.73	0.75	0.70	0.76
West North Central	0.96	1.06	1.07	1.06	1.11
South Atlantic	0.76	0.66	0.73	0.63	0.78
East South Central	1.23	1.33	1.24	1.24	1.29
West South Central	0.94	0.88	0.84	0.90	0.86
Mountain	1.30	1.35	1.29	1.09	1.26
Pacific	0.74	0.69	0.70	0.63	0.69
Type of Practice					
Solo	0.42	0.43	0.44	0.43	0.45
Non-solo	0.42	0.40	0.41	0.36	0.40
Location					
Nonmetropolitan	0.88	0.80	0.81	0.79	0.90
Metropolitan—					
Less than 1,000,000	0.46	0.44	0.45	0.43	0.45
1,000,000 and over	0.43	0.44	0.45	0.40	0.44
Physician Age					
Less than 36 years	0.95	0.91	0.85	0.76	0.89
36-45 years	0.51	0.52	0.53	0.47	0.48
46-55 years	0.59	0.60	0.63	0.58	0.60
56-65 years	0.65	0.57	0.60	0.61	0.76
66 or more years	0.84	0.79	0.90	0.88	0.95

Table 9. **Mean Number of Office Hours per Week, 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	26.2	33.9	25.8	22.1	31.4	28.1
Census Division						
New England	25.0	.	27.2	20.7	.	.
Middle Atlantic	24.3	29.8	24.5	19.4	30.1	24.5
East North Central	24.5	32.4	25.8	20.8	30.1	24.1
West North Central	27.0	34.2	24.1	22.4	.	.
South Atlantic	26.4	35.8	24.2	22.6	31.9	29.4
East South Central	27.6	35.9	27.1	20.6	.	.
West South Central	28.4	35.7	26.3	24.5	36.8	30.2
Mountain	27.1	34.4	29.0	21.9	.	.
Pacific	27.9	34.4	27.3	24.5	31.9	31.0
Type of Practice						
Solo	28.6	34.3	28.2	23.2	37.2	29.7
Non-solo	24.4	33.5	24.0	21.0	28.6	26.8
Location						
Nonmetropolitan	30.2	35.2	32.8	22.2	37.2	.
Metropolitan—						
Less than 1,000,000	26.4	34.1	26.4	22.1	32.1	29.0
1,000,000 and over	25.2	32.7	24.5	22.1	29.9	27.6
Employment Status						
Self-employed	28.2	34.7	28.0	22.7	36.7	29.1
Employee	20.3	31.3	19.4	18.3	20.2	21.6
Physician Age						
Less than 36 years	26.5	36.5	27.5	21.9	29.6	28.7
36-45 years	25.1	35.3	24.2	22.4	29.9	28.7
46-55 years	26.4	31.8	26.3	22.5	33.1	26.6
56-65 years	28.3	35.0	27.7	21.6	34.1	29.7
66 or more years	26.2	29.8	26.5	20.7	.	25.4

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 9 (continued). **Standard Error of the Mean Number of Office Hours per Week, 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.26	0.48	0.57	0.42	0.87	0.64
Census Division						
New England	1.13	.	1.79	1.63	.	.
Middle Atlantic	0.64	1.65	1.26	0.97	1.88	1.17
East North Central	0.66	1.30	1.38	0.99	2.16	2.06
West North Central	1.00	1.27	2.57	1.69	.	.
South Atlantic	0.67	1.24	1.35	0.95	2.50	1.81
East South Central	1.08	1.78	2.43	1.49	.	.
West South Central	0.80	1.09	2.44	1.19	2.09	1.84
Mountain	1.11	1.57	2.53	2.01	.	.
Pacific	0.63	1.11	1.40	1.18	1.81	1.31
Type of Practice						
Solo	0.35	0.64	0.75	0.56	1.22	0.94
Non-solo	0.38	0.73	0.81	0.62	1.09	0.85
Location						
Nonmetropolitan	0.69	0.76	1.58	1.19	2.36	.
Metropolitan—						
Less than 1,000,000	0.41	0.85	0.90	0.60	1.38	1.05
1,000,000 and over	0.39	0.82	0.78	0.65	1.23	0.85
Employment Status						
Self-employed	0.27	0.49	0.57	0.43	0.74	0.65
Employee	0.66	1.31	1.36	1.37	1.77	2.05
Physician Age						
Less than 36 years	0.86	1.13	1.55	1.90	2.32	1.80
36-45 years	0.43	0.81	0.88	0.67	1.44	1.06
46-55 years	0.53	1.18	1.27	0.78	1.68	1.36
56-65 years	0.62	1.18	1.41	0.94	2.11	1.55
66 or more years	0.75	1.12	1.93	1.45	.	1.27

Table 10. **Mean Number of Office Hours per Week, 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	29.7	30.8	28.2	27.9	26.5	26.3	24.9	25.3	26.2
Specialty									
General/Family Practice	34.7	35.9	33.4	33.7	33.3	33.2	32.4	32.9	33.9
Internal Medicine	29.6	30.6	28.2	27.7	26.9	25.6	24.2	24.8	25.8
Surgery	23.8	25.4	22.7	22.2	21.7	21.6	21.2	21.9	22.1
Pediatrics	35.8	36.7	34.8	34.8	31.9	32.3	29.4	29.1	31.4
Obstetrics/Gynecology	28.4	31.4	29.4	29.4	26.8	27.5	25.9	28.4	28.1
Census Division									
New England	27.2	29.2	26.2	26.5	25.8	25.1	24.2	23.7	25.0
Middle Atlantic	27.0	28.2	26.3	25.4	24.4	23.3	22.8	23.5	24.3
East North Central	28.3	29.0	26.5	26.8	25.0	25.1	22.7	23.9	24.5
West North Central	29.8	30.0	27.8	28.0	26.5	27.5	24.9	26.1	27.0
South Atlantic	31.6	32.5	29.6	28.6	26.9	26.8	26.2	26.3	26.4
East South Central	30.8	33.7	29.3	29.2	27.0	28.9	28.7	28.6	27.6
West South Central	31.7	32.9	30.0	31.1	29.4	28.8	26.3	26.6	28.4
Mountain	30.4	31.3	28.2	28.5	28.2	26.7	26.5	25.5	27.1
Pacific	31.7	32.7	29.8	28.8	27.7	27.1	25.3	26.0	27.9
Type of Practice									
Solo	30.1	30.8	28.7	28.5	27.5	28.0	27.0	28.0	28.6
Non-solo	29.2	30.8	27.7	27.2	25.5	24.9	23.0	23.0	24.4
Location									
Nonmetropolitan	33.1	33.6	31.0	30.8	29.7	30.2	29.8	28.9	30.2
Metropolitan—									
Less than 1,000,000	29.7	31.2	28.3	28.2	26.7	26.5	24.9	25.6	26.4
1,000,000 and over	28.8	29.8	27.5	26.9	25.6	25.2	23.8	24.3	25.2
Physician Age									
Less than 36 years	29.9	29.7	29.0	28.2	25.6	26.0	24.9	22.9	26.5
36-45 years	29.2	29.3	27.1	26.8	25.4	25.1	23.1	24.1	25.1
46-55 years	30.6	32.7	29.1	28.6	27.4	27.2	26.0	25.9	26.4
56-65 years	30.3	32.1	28.7	28.7	27.8	28.0	27.2	27.9	28.3
66 or more years	27.4	29.2	27.0	27.1	27.3	26.2	24.6	26.6	26.2

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. 1976, 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians excluding residents.

a. Data, other than in the specialty breakdown, include physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 10 (continued). **Standard Error of the Mean Number of Office Hours per Week, 1976, 1978-80, 1982-86[a]**

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	0.20	0.24	0.21	0.19	0.26	0.25	0.26	0.26	0.26
Specialty									
General/Family Practice	0.36	0.40	0.37	0.32	0.43	0.47	0.46	0.45	0.48
Internal Medicine	0.42	0.54	0.41	0.38	0.59	0.56	0.57	0.61	0.57
Surgery	0.35	0.47	0.38	0.35	0.38	0.41	0.41	0.44	0.42
Pediatrics	0.65	0.90	0.67	0.65	0.79	0.78	0.83	0.85	0.87
Obstetrics/Gynecology	0.57	0.69	0.53	0.49	0.52	0.57	0.60	0.59	0.64
Census Division									
New England	0.79	0.98	0.90	0.83	1.12	0.96	1.19	1.23	1.13
Middle Atlantic	0.46	0.63	0.50	0.48	0.66	0.68	0.67	0.63	0.64
East North Central	0.47	0.55	0.46	0.45	0.63	0.61	0.61	0.64	0.66
West North Central	0.72	0.84	0.77	0.64	0.90	0.89	0.93	0.95	1.00
South Atlantic	0.57	0.64	0.54	0.48	0.61	0.62	0.60	0.60	0.67
East South Central	0.97	1.21	0.85	0.96	1.02	1.07	1.09	1.21	1.08
West South Central	0.72	0.82	0.71	0.65	0.81	0.78	0.79	0.83	0.80
Mountain	0.83	1.09	0.87	0.88	1.27	1.16	1.23	1.22	1.11
Pacific	0.46	0.52	0.49	0.44	0.62	0.61	0.63	0.66	0.65
Type of Practice									
Solo	0.27	0.32	0.28	0.25	0.35	0.34	0.33	0.34	0.35
Non-solo	0.31	0.38	0.31	0.29	0.38	0.37	0.39	0.38	0.38
Location									
Nonmetropolitan	0.58	0.67	0.57	0.55	0.68	0.63	0.64	0.66	0.69
Metropolitan—									
Less than 1,000,000	0.31	0.40	0.32	0.30	0.40	0.40	0.40	0.42	0.41
1,000,000 and over	0.30	0.35	0.31	0.28	0.38	0.38	0.39	0.38	0.39
Physician Age									
Less than 36 years	0.91	1.01	0.69	0.66	0.81	0.82	0.81	0.80	0.86
36-45 years	0.38	0.47	0.42	0.38	0.48	0.48	0.47	0.45	0.43
46-55 years	0.38	0.45	0.39	0.38	0.52	0.53	0.54	0.53	0.53
56-65 years	0.37	0.48	0.41	0.38	0.53	0.47	0.51	0.60	0.62
66 or more years	0.52	0.61	0.54	0.49	0.61	0.65	0.66	0.65	0.75

Table 11. **Mean Number of Hours on Hospital Rounds per Week, 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	8.8	6.4	14.4	7.8	8.7	6.4
Census Division						
New England	7.7	.	10.9	9.1	.	.
Middle Atlantic	9.7	6.2	14.3	9.8	8.5	5.8
East North Central	10.4	8.0	17.2	7.5	10.2	6.0
West North Central	8.3	6.7	13.6	7.0	.	.
South Atlantic	9.1	6.3	17.0	7.7	8.0	6.0
East South Central	9.0	6.9	14.0	9.2	.	.
West South Central	8.7	7.9	14.9	7.1	9.5	8.1
Mountain	7.4	5.0	13.3	6.8	.	.
Pacific	7.0	4.3	10.9	6.9	7.7	5.5
Type of Practice						
Solo	8.8	6.7	14.6	7.6	7.8	6.5
Non-solo	8.9	6.2	14.2	8.0	9.1	6.3
Location						
Nonmetropolitan	7.9	6.7	13.0	8.1	10.1	.
Metropolitan—						
Less than 1,000,000	9.2	6.7	15.7	8.2	8.5	7.1
1,000,000 and over	8.7	5.9	13.7	7.3	8.5	5.7
Employment Status						
Self-employed	9.2	6.8	15.0	7.9	8.2	6.6
Employee	7.7	5.3	12.8	7.0	9.7	4.9
Physician Age						
Less than 36 years	9.4	5.7	15.7	7.5	13.8	5.6
36-45 years	9.8	6.4	15.9	8.0	7.8	6.4
46-55 years	8.9	6.5	14.9	7.8	9.7	6.5
56-65 years	7.5	7.3	10.6	7.4	5.9	6.4
66 or more years	6.4	5.8	8.2	7.7	.	6.7

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 11 (continued). **Standard Error of the Mean Number of Hours on Hospital Rounds per Week, 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.18	0.26	0.50	0.27	0.55	0.32
Census Division						
New England	0.74	.	1.42	2.11	.	.
Middle Atlantic	0.48	0.88	1.08	0.93	1.27	0.53
East North Central	0.53	0.69	1.35	0.61	1.51	0.63
West North Central	0.66	0.69	2.34	0.92	.	.
South Atlantic	0.45	0.61	1.31	0.57	1.48	0.70
East South Central	0.63	1.31	1.93	0.97	.	.
West South Central	0.50	0.73	1.72	0.61	1.64	1.68
Mountain	0.59	0.72	1.90	1.03	.	.
Pacific	0.36	0.41	1.01	0.58	1.43	0.49
Type of Practice						
Solo	0.26	0.36	0.75	0.39	0.61	0.56
Non-solo	0.25	0.37	0.66	0.36	0.75	0.32
Location						
Nonmetropolitan	0.40	0.48	1.42	0.78	1.41	.
Metropolitan—						
Less than 1,000,000	0.28	0.42	0.83	0.39	0.76	0.65
1,000,000 and over	0.27	0.44	0.66	0.41	0.90	0.31
Employment Status						
Self-employed	0.19	0.27	0.55	0.30	0.45	0.35
Employee	0.43	0.65	1.10	0.58	1.46	0.61
Physician Age						
Less than 36 years	0.62	0.49	1.56	0.88	2.33	0.59
36-45 years	0.32	0.43	0.78	0.46	0.68	0.39
46-55 years	0.36	0.65	1.08	0.52	1.04	0.97
56-65 years	0.33	0.62	1.03	0.52	0.92	0.55
66 or more years	0.40	0.70	0.91	0.98	.	0.81

Table 12. **Mean Number of Hours on Hospital Rounds per Week, 1976, 1982-86**[a]

	1976	1982	1983	1984	1985	1986
All Physicians	13.3	9.5	10.0	8.5	8.3	8.8
Specialty						
General/Family Practice	10.5	8.4	8.5	6.7	6.7	6.4
Internal Medicine	17.2	14.7	16.1	13.3	13.4	14.4
Surgery	15.5	9.7	9.1	8.1	7.2	7.8
Pediatrics	8.3	8.2	9.5	7.6	7.9	8.7
Obstetrics/Gynecology	12.7	6.6	6.5	6.4	5.5	6.4
Census Division						
New England	13.9	9.1	9.7	7.1	7.5	7.7
Middle Atlantic	14.6	9.4	10.5	9.0	9.6	9.7
East North Central	14.6	10.4	12.1	9.0	9.3	10.4
West North Central	14.2	10.7	10.8	9.1	7.8	8.3
South Atlantic	12.6	10.0	9.6	8.7	7.9	9.1
East South Central	15.8	10.7	10.9	9.3	8.9	9.0
West South Central	13.1	9.6	10.6	9.4	9.3	8.7
Mountain	12.5	8.8	8.1	7.4	7.0	7.4
Pacific	10.4	7.5	8.0	7.1	6.7	7.0
Type of Practice						
Solo	12.8	9.5	9.8	8.1	8.3	8.8
Non-solo	13.8	9.5	10.2	8.9	8.3	8.9
Location						
Nonmetropolitan	13.0	10.9	10.9	8.6	7.6	7.9
Metropolitan—						
Less than 1,000,000	13.9	10.1	10.1	8.7	8.4	9.2
1,000,000 and over	12.9	8.6	9.8	8.3	8.4	8.7
Physician Age						
Less than 36 years	13.0	10.8	12.0	9.2	8.2	9.4
36-45 years	14.7	10.0	10.9	9.7	9.3	9.8
46-55 years	14.1	9.4	9.9	8.6	8.8	8.9
56-65 years	12.5	8.8	8.9	7.1	7.1	7.5
66 or more years	9.6	6.9	6.2	5.2	5.9	6.4

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. 1976 AMA Periodic Survey of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 12 (continued). **Standard Error of the Mean Number of Hours on Hospital Rounds per Week, 1976, 1982-86**[a]

	1976	1982	1983	1984	1985	1986
All Physicians	0.19	0.17	0.18	0.16	0.17	0.18
Specialty						
General/Family Practice	0.30	0.28	0.27	0.25	0.26	0.26
Internal Medicine	0.41	0.51	0.53	0.49	0.52	0.50
Surgery	0.39	0.27	0.26	0.25	0.24	0.27
Pediatrics	0.42	0.41	0.67	0.41	0.51	0.55
Obstetrics/Gynecology	0.62	0.28	0.27	0.25	0.23	0.32
Census Division						
New England	0.82	0.72	0.69	0.58	0.64	0.74
Middle Atlantic	0.48	0.45	0.48	0.45	0.48	0.48
East North Central	0.43	0.42	0.55	0.41	0.44	0.53
West North Central	0.63	0.63	0.57	0.57	0.58	0.66
South Atlantic	0.48	0.45	0.42	0.41	0.35	0.45
East South Central	1.19	0.64	0.70	0.57	0.64	0.63
West South Central	0.60	0.55	0.54	0.50	0.57	0.50
Mountain	0.83	0.77	0.66	0.55	0.60	0.59
Pacific	0.36	0.38	0.42	0.39	0.37	0.36
Type of Practice						
Solo	0.25	0.24	0.25	0.21	0.24	0.26
Non-solo	0.28	0.25	0.27	0.24	0.23	0.25
Location						
Nonmetropolitan	0.60	0.47	0.44	0.39	0.38	0.40
Metropolitan—						
Less than 1,000,000	0.30	0.28	0.28	0.25	0.25	0.28
1,000,000 and over	0.26	0.24	0.28	0.25	0.26	0.27
Physician Age						
Less than 36 years	0.76	0.56	0.72	0.49	0.45	0.62
36-45 years	0.37	0.34	0.34	0.33	0.31	0.32
46-55 years	0.34	0.32	0.36	0.33	0.37	0.36
56-65 years	0.38	0.33	0.30	0.25	0.30	0.33
66 or more years	0.44	0.39	0.35	0.32	0.39	0.40

Table 13. **Mean Number of Hours in Surgery per Week , 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	6.2	1.9	1.6	14.6	1.2	17.1
Census Division						
New England	5.2	.	0.2	15.1	.	.
Middle Atlantic	5.6	0.6	1.2	14.9	1.2	17.2
East North Central	6.9	2.2	1.7	16.7	1.1	16.9
West North Central	6.1	3.4	3.1	14.3	.	.
South Atlantic	5.9	0.8	2.5	13.1	1.4	17.5
East South Central	6.3	0.5	1.4	15.6	.	.
West South Central	6.3	2.5	1.2	12.9	1.2	16.8
Mountain	6.8	3.4	1.1	14.6	.	.
Pacific	6.5	2.7	1.8	14.7	1.7	16.0
Type of Practice						
Solo	6.0	1.9	1.2	12.8	1.3	16.0
Non-solo	6.4	1.9	1.9	16.4	1.2	18.2
Location						
Nonmetropolitan	5.6	2.7	0.1	15.4	2.1	.
Metropolitan—						
Less than 1,000,000	6.7	1.7	1.9	15.1	1.4	17.6
1,000,000 and over	5.9	1.4	1.6	14.0	1.0	17.0
Employment Status						
Self-employed	6.9	2.0	1.8	14.3	1.2	17.2
Employee	4.1	1.3	1.2	16.4	1.2	16.9
Physician Age						
Less than 36 years	5.6	3.1	1.8	19.3	1.2	17.4
36-45 years	6.3	2.5	1.5	15.5	1.3	19.1
46-55 years	7.5	1.3	2.3	14.9	1.1	16.6
56-65 years	5.7	1.5	1.3	12.8	1.0	15.4
66 or more years	4.1	1.0	0.2	10.4	.	13.7

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 13 (continued). **Standard Error of the Mean Number of Hours in Surgery per Week, 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.18	0.15	0.25	0.38	0.15	0.69
Census Division						
New England	0.75	.	0.15	1.34	.	.
Middle Atlantic	0.47	0.24	0.53	1.09	0.50	1.93
East North Central	0.52	0.38	0.55	1.19	0.22	2.19
West North Central	0.67	0.79	1.81	1.31	.	.
South Atlantic	0.42	0.27	0.82	0.78	0.43	1.57
East South Central	0.72	0.31	1.01	1.34	.	.
West South Central	0.47	0.40	0.55	0.87	0.29	1.46
Mountain	0.79	0.66	0.88	1.86	.	.
Pacific	0.45	0.44	0.52	0.87	0.37	1.71
Type of Practice						
Solo	0.25	0.23	0.28	0.47	0.23	1.01
Non-solo	0.26	0.20	0.38	0.60	0.19	0.94
Location						
Nonmetropolitan	0.46	0.39	0.05	1.12	0.50	.
Metropolitan—						
Less than 1,000,000	0.28	0.22	0.45	0.54	0.27	0.96
1,000,000 and over	0.28	0.22	0.33	0.62	0.17	1.04
Employment Status						
Self-employed	0.21	0.18	0.30	0.38	0.13	0.74
Employee	0.36	0.27	0.42	1.50	0.38	2.00
Physician Age						
Less than 36 years	0.58	0.42	0.65	2.72	0.28	1.61
36-45 years	0.29	0.37	0.33	0.53	0.29	1.23
46-55 years	0.40	0.29	0.74	0.64	0.18	1.38
56-65 years	0.42	0.29	0.68	0.86	0.41	1.47
66 or more years	0.46	0.26	0.17	1.35	.	2.37

Table 14. **Mean Number of Hours in Surgery per Week, 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	5.5	6.0	5.5	5.6	6.2
Specialty					
General/Family Practice	2.2	2.5	2.0	1.7	1.9
Internal Medicine	0.7	1.1	1.3	1.4	1.6
Surgery	13.0	13.8	13.1	13.4	14.6
Pediatrics	0.8	1.0	1.2	0.9	1.2
Obstetrics/Gynecology	13.6	15.8	13.6	14.6	17.1
Census Division					
New England	5.2	5.0	4.6	4.7	5.2
Middle Atlantic	4.9	6.3	5.1	5.4	5.6
East North Central	5.9	6.2	6.1	5.3	6.9
West North Central	6.8	6.1	7.0	5.9	6.1
South Atlantic	5.6	5.7	5.4	6.0	5.9
East South Central	6.0	6.2	5.6	6.7	6.3
West South Central	5.7	6.9	6.1	5.9	6.3
Mountain	5.8	5.8	5.4	6.8	6.8
Pacific	4.8	5.9	5.0	5.2	6.5
Type of Practice					
Solo	5.1	6.1	5.6	5.6	6.0
Non-solo	6.0	6.0	5.5	5.7	6.4
Location					
Nonmetropolitan	5.6	5.8	5.5	5.5	5.6
Metropolitan—					
Less than 1,000,000	5.5	6.5	6.2	6.1	6.7
1,000,000 and over	5.5	5.7	5.0	5.3	5.9
Physician Age					
Less than 36 years	3.8	4.3	4.0	3.9	5.6
36-45 years	6.3	6.6	6.0	6.2	6.3
46-55 years	6.4	7.0	6.5	6.8	7.5
56-65 years	5.5	6.1	5.5	5.3	5.7
66 or more years	3.3	3.2	3.5	3.0	4.1

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active nonfederal patient care physicians excluding residents.

[a] Data, other than in the specialty breakdown, include physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 14 (continued). **Standard Error of the Mean Number of Hours in Surgery per Week , 1982-86**[a]

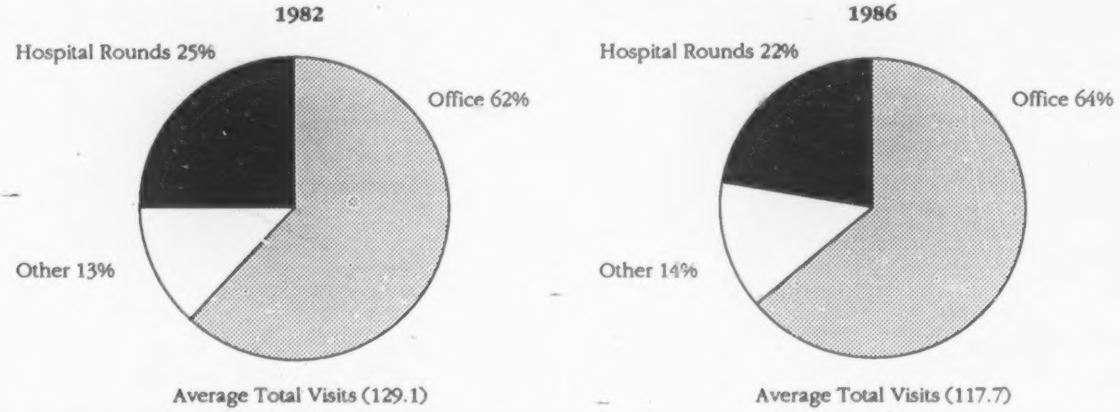
	1982	1983	1984	1985	1986
All Physicians	0.16	0.17	0.16	0.16	0.18
Specialty					
General/Family Practice	0.16	0.16	0.17	0.13	0.15
Internal Medicine	0.12	0.19	0.23	0.24	0.25
Surgery	0.32	0.33	0.31	0.33	0.38
Pediatrics	0.13	0.12	0.17	0.11	0.15
Obstetrics/Gynecology	0.60	0.64	0.48	0.55	0.69
Census Division					
New England	0.68	0.69	0.61	0.68	0.75
Middle Atlantic	0.41	0.52	0.42	0.40	0.47
East North Central	0.42	0.40	0.40	0.37	0.52
West North Central	0.64	0.54	0.66	0.62	0.67
South Atlantic	0.41	0.41	0.35	0.38	0.42
East South Central	0.73	0.63	0.60	0.82	0.72
West South Central	0.49	0.51	0.51	0.52	0.47
Mountain	0.69	0.74	0.62	0.79	0.79
Pacific	0.36	0.39	0.36	0.35	0.45
Type of Practice					
Solo	0.21	0.24	0.22	0.23	0.25
Non-solo	0.26	0.24	0.22	0.23	0.26
Location					
Nonmetropolitan	0.40	0.40	0.39	0.46	0.46
Metropolitan—					
Less than 1,000,000	0.25	0.26	0.25	0.26	0.28
1,000,000 and over	0.25	0.26	0.23	0.22	0.28
Physician Age					
Less than 36 years	0.37	0.41	0.37	0.38	0.58
36-45 years	0.32	0.32	0.30	0.29	0.29
46-55 years	0.35	0.38	0.35	0.37	0.40
56-65 years	0.36	0.35	0.32	0.34	0.42
66 or more years	0.31	0.33	0.34	0.32	0.46

Utilization of Physician Services

Utilization of physician services refers to the quantity of services provided by physicians to their patients. The number of patient visits is a measure which captures a large proportion of the overall utilization of physician services. In the statistics that follow, total visits are decomposed into office visits, visits on hospital rounds and other visits. Other visits include those in hospital emergency rooms and outpatient clinics, nursing homes, extended care facilities and all other settings.

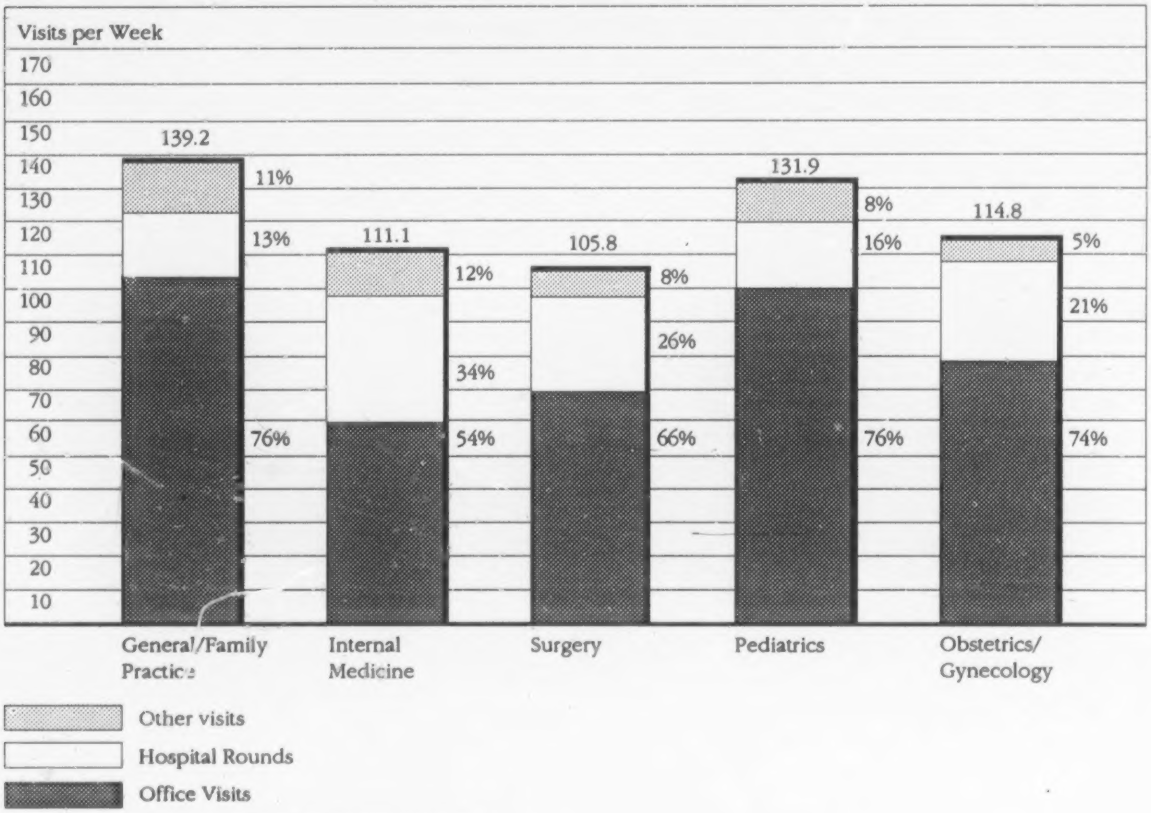
As shown in Figure 4, the average number of physician visits per physician per week was 117.7 in 1987. This represents a 9.7% decrease from 129.1 visits per week in 1982. The distribution of visits showed a slight shift toward more visits in the office and other settings and away from inpatient visits. Figure 5 indicates how the average number and distribution of visits differs across specialties. Similarly, Figure 6 indicates wide differences in the number of weekly visits per physician across geographic areas, ranging from 107.4 to 148.9, respectively, in the Pacific and East South Central Census Divisions.

Figure 4. **Distribution of Average Total Patient Visits per Week of All Physicians, 1982 and 1986ª**



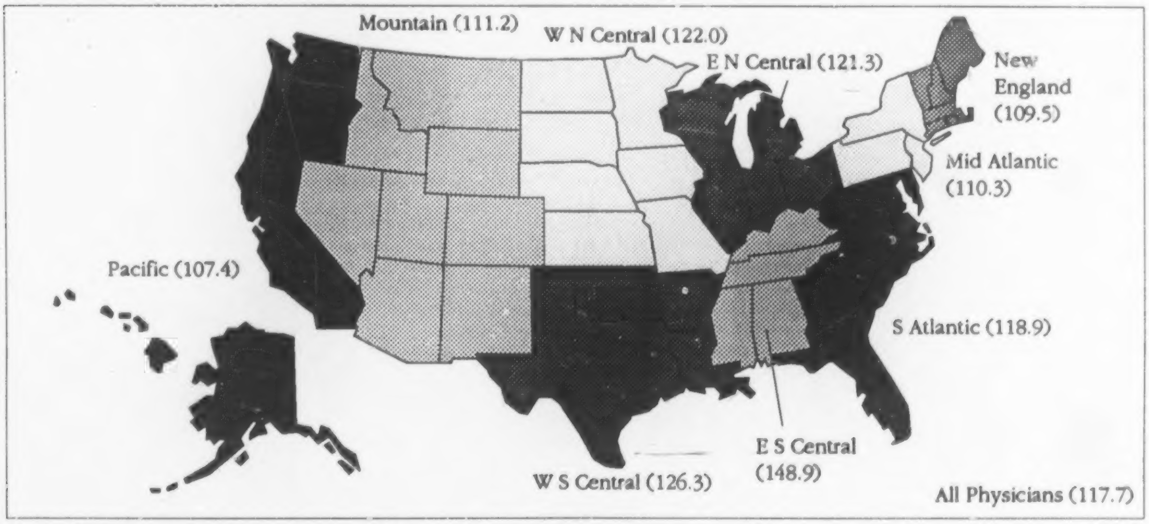
Source: AMA Socioeconomic Monitoring System 1982 and 1986 core surveys.
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Figure 5. **Distribution of Average Total Patient Visits per Week by Specialty, 1986[a]**



Source: AMA Socioeconomic Monitoring System 1986 core survey.
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Figrue 6. **Average Total Patient Visits per Physician per Week by Census Division, 1986[a]**


Mountain (111.2)
W N Central (122.0)
E N Central (121.3)
New England (109.5)
Mid Atlantic (110.3)
Pacific (107.4)
S Atlantic (118.9)
E S Central (148.9)
W S Central (126.3)
All Physicians (117.7)

Source: AMA Socioeconomic Monitoring System 1986 core survey.
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Table 15. **Mean Number of Total Patient Visits per Week, 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	117.7	139.2	111.1	105.8	131.9	114.8
Census Division						
New England	109.5	.	102.8	109.0	.	.
Middle Atlantic	110.3	118.4	108.4	105.0	124.7	102.3
East North Central	121.3	134.1	124.6	113.2	136.0	123.2
West North Central	122.0	133.6	100.5	113.0	.	.
South Atlantic	118.9	139.8	116.3	105.8	129.8	100.1
East South Central	148.9	169.4	138.2	134.7	.	.
West South Central	126.3	160.3	118.3	101.1	143.6	117.0
Mountain	111.2	137.7	95.8	96.0	.	.
Pacific	107.4	138.3	96.0	91.0	124.1	100.6
Type of Practice						
Solo	112.2	139.1	110.7	92.3	136.0	102.4
Non-solo	122.0	139.4	111.4	119.3	129.8	125.7
Location						
Nonmetropolitan	140.0	155.9	133.8	105.3	157.7	.
Metropolitan—						
Less than 1,000,000	124.1	140.4	124.5	112.5	141.4	121.0
1,000,000 and over	106.7	125.3	99.3	98.9	119.6	107.4
Employment Status						
Self-employed	121.3	143.2	117.9	105.6	146.3	116.4
Employee	106.8	126.5	91.5	107.2	99.5	103.0
Physician Age						
Less than 36 years	121.6	134.0	110.3	120.5	138.2	124.6
36-45 years	119.4	142.0	110.6	110.8	129.8	118.8
46-55 years	120.8	138.9	123.6	110.0	136.9	123.3
56-65 years	113.6	149.9	98.7	94.4	126.7	96.0
66 or more years	104.1	122.9	103.9	84.0	.	90.5

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 15 (continued). **Standard Error of the Mean Number of Total Patient Visits per Week, 1986[a]**

		Specialty				
	All Physicians[a]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	1.32	2.97	3.11	2.27	4.09	3.19
Census Division						
New England	4.80	.	8.18	9.44	.	.
Middle Atlantic	2.83	6.92	5.91	6.72	8.25	6.07
East North Central	3.24	6.67	6.93	6.24	11.85	8.04
West North Central	4.08	6.10	10.20	8.55	.	.
South Atlantic	3.78	7.24	13.05	4.53	10.99	7.63
East South Central	7.86	16.26	14.20	11.82	.	.
West South Central	3.94	8.85	9.75	5.29	14.54	8.35
Mountain	4.62	11.04	7.55	8.52	.	.
Pacific	2.79	7.66	4.87	5.27	8.01	5.87
Type of Practice						
Solo	1.76	4.18	3.90	2.55	6.52	4.18
Non-solo	1.89	4.24	4.57	3.65	5.18	4.57
Location						
Nonmetropolitan	3.91	6.10	10.70	6.76	11.71	.
Metropolitan—						
Less than 1,000,000	2.22	4.62	6.43	3.07	7.33	5.54
1,000,000 and over	1.68	4.84	3.04	3.68	4.83	4.00
Employment Status						
Self-employed	1.49	3.38	3.77	2.38	4.38	3.33
Employee	2.77	6.14	4.97	6.99	8.04	10.44
Physician Age						
Less than 36 years	3.61	6.17	5.58	13.41	13.38	10.44
36-45 years	2.00	4.94	3.92	3.38	6.75	4.92
46-55 years	3.07	7.05	11.40	4.12	6.86	6.97
56-65 years	3.11	7.70	4.71	5.24	9.50	6.45
66 or more years	4.22	7.43	11.48	6.56	.	9.45

Table 16. **Mean Number of Total Patient Visits per Week, 1976, 1978-79, 1982-86**[a]

	1976	1978	1979	1982	1983	1984	1985	1986
All Physicians	134.7	133.1	127.4	129.1	123.4	118.1	117.1	117.7
Specialty								
General/Family Practice	163.6	175.1	156.1	161.3	148.4	139.0	138.1	139.2
Internal Medicine	122.5	117.6	115.3	117.0	113.4	107.7	105.2	111.1
Surgery	120.6	109.8	113.9	113.1	111.9	110.0	108.2	105.8
Pediatrics	144.2	142.0	137.7	134.4	137.4	128.7	130.8	131.9
Obstetrics/Gynecology	132.0	127.9	125.6	126.6	118.2	115.7	112.0	114.8
Census Division								
New England	115.6	106.2	105.0	129.1	113.3	108.7	98.2	109.5
Middle Atlantic	121.5	122.4	121.1	120.2	121.5	114.4	110.9	110.3
East North Central	150.7	138.8	139.7	135.1	127.5	123.1	122.6	121.3
West North Central	153.6	151.8	141.0	137.7	141.3	128.6	117.6	122.0
South Atlantic	132.7	129.7	129.8	131.2	123.4	119.9	122.3	118.9
East South Central	176.8	187.5	166.8	150.4	149.8	153.8	157.5	148.9
West South Central	156.0	140.4	136.7	139.9	138.6	132.6	127.5	126.3
Mountain	124.5	130.5	128.1	128.3	121.1	114.2	109.9	111.2
Pacific	117.4	123.2	109.8	112.3	100.9	94.7	102.4	107.4
Type of Practice								
Solo	130.7	129.3	121.7	123.8	116.7	113.7	112.3	112.2
Non-solo	139.0	138.2	133.8	134.8	129.1	122.3	121.2	122.0
Location								
Nonmetropolitan	167.2	172.1	157.4	166.9	153.3	150.3	144.0	140.0
Metropolitan—								
Less than 1,000,000	142.9	138.1	135.4	134.8	131.6	125.6	123.7	124.1
1,000,000 and over	119.5	116.8	113.4	115.3	107.8	104.1	105.6	106.7
Physician Age								
Less than 36 years	121.7	119.2	117.9	118.4	115.5	118.3	115.6	121.6
36-45 years	143.2	128.5	129.5	130.3	125.1	116.0	118.4	119.4
46-55 years	148.5	148.5	140.7	137.3	131.6	128.4	119.9	120.8
56-65 years	131.3	137.7	131.2	133.1	127.3	121.1	121.9	113.6
66 or more years	99.3	110.9	95.1	112.8	95.0	91.7	94.9	104.1

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. 1976, 1978-79, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 16 (continued). **Standard Error of the Mean Number of Total Patient Visits per Week, 1976, 1978-79, 1982-86**[a]

	1976	1978	1979	1982	1983	1984	1985	1986
All Physicians	1.3	2.0	1.3	1.4	1.5	1.3	1.3	1.3
Specialty								
General/Family Practice	3.0	4.1	3.0	3.3	3.2	3.1	2.8	3.0
Internal Medicine	2.4	3.7	2.5	3.1	2.8	2.8	3.0	3.1
Surgery	2.2	3.2	2.3	2.1	2.3	2.2	2.2	2.3
Pediatrics	4.6	6.5	3.8	4.0	4.7	4.0	3.7	4.1
Obstetrics/Gynecology	3.6	5.3	3.3	3.7	3.8	3.1	3.0	3.2
Census Division								
New England	3.9	5.4	3.7	5.9	4.3	5.2	4.3	4.8
Middle Atlantic	2.9	4.7	3.1	3.5	4.5	3.4	3.5	2.8
East North Central	3.6	4.7	3.2	3.3	3.3	3.3	3.3	3.2
West North Central	5.1	7.1	5.9	5.0	6.0	5.0	3.9	4.1
South Atlantic	3.3	5.4	3.3	3.6	3.1	2.8	2.9	3.8
East South Central	7.1	11.6	7.1	7.0	7.5	6.7	7.1	7.9
West South Central	4.7	6.7	4.8	5.1	4.6	4.0	4.1	3.9
Mountain	4.6	8.3	5.7	5.6	9.1	5.4	4.6	4.6
Pacific	2.5	3.6	2.5	3.3	2.4	2.4	2.4	2.8
Type of Practice								
Solo	1.8	2.7	1.8	1.9	2.0	1.8	1.8	1.8
Non-solo	1.9	2.9	1.9	2.1	2.1	1.8	1.8	1.9
Location								
Nonmetropolitan	4.5	6.4	4.5	4.9	4.3	4.1	4.3	3.9
Metropolitan—								
Less than 1,000,000	2.1	3.0	2.0	2.2	2.4	2.0	2.0	2.2
1,000,000 and over	1.7	2.5	1.8	1.9	1.8	1.7	1.7	1.7
Physician Age								
Less than 36 years	4.6	6.6	3.6	3.6	3.4	3.4	3.1	3.6
36-45 years	2.4	3.5	2.4	2.5	2.8	2.3	2.2	2.0
46-55 years	2.5	3.7	2.5	3.2	3.3	2.8	2.8	3.1
56-65 years	2.5	4.1	3.0	3.3	2.9	2.8	3.0	3.1
66 or more years	3.4	6.1	3.2	4.0	3.2	3.4	3.3	4.2

Table 17. **Mean Number of Office Visits per Week, 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	75.7	106.3	60.0	69.8	100.7	85.2
Census Division						
New England	70.3	.	65.7	77.0	.	.
Middle Atlantic	67.6	88.0	58.4	62.6	93.3	77.7
East North Central	75.5	101.0	67.4	74.3	100.1	89.0
West North Central	80.0	103.2	51.8	76.7	.	.
South Atlantic	74.8	108.5	55.7	69.0	99.4	78.1
East South Central	92.5	118.7	69.6	86.1	.	.
West South Central	81.6	115.8	53.5	71.8	118.7	84.4
Mountain	75.7	116.9	58.6	59.6	.	.
Pacific	75.6	114.6	59.3	63.5	97.3	81.4
Type of Practice						
Solo	79.2	106.8	63.7	65.8	114.9	81.1
Non-solo	72.9	105.7	57.3	73.8	93.8	88.8
Location						
Nonmetropolitan	92.5	114.9	78.4	64.7	116.2	.
Metropolitan—						
Less than 1,000,000	78.5	105.7	64.3	73.8	106.0	89.3
1,000,000 and over	69.1	100.4	55.0	66.8	93.8	80.7
Employment Status						
Self-employed	82.8	108.7	66.8	72.4	120.9	89.3
Employee	53.8	98.1	40.4	54.2	56.4	56.3
Physician Age						
Less than 36 years	69.8	107.1	57.9	75.5	86.4	75.2
36-45 years	72.7	109.6	56.0	73.7	97.2	88.1
46-55 years	81.3	102.7	70.8	73.9	110.0	92.7
56-65 years	80.5	114.1	58.6	63.6	108.7	79.1
66 or more years	71.1	91.5	58.3	48.6	.	74.6

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 17 (continued). **Standard Error of the Mean Number of Office Visits per Week, 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	1.07	2.37	1.96	1.93	3.53	2.58
Census Division						
New England	4.48	.	6.74	10.01	.	.
Middle Atlantic	2.33	6.43	3.81	4.94	7.98	4.87
East North Central	2.70	5.17	5.21	5.27	8.67	8.64
West North Central	3.61	5.02	6.29	7.47	.	.
South Atlantic	2.70	6.17	6.46	3.63	8.93	5.82
East South Central	5.03	8.70	9.92	9.76	.	.
West South Central	3.26	6.03	6.02	4.92	12.70	6.33
Mountain	4.48	9.89	6.59	7.48	.	.
Pacific	2.73	7.20	4.06	4.97	6.98	5.52
Type of Practice						
Solo	1.46	3.19	2.58	2.27	5.57	3.37
Non-solo	1.52	3.52	2.81	3.12	4.41	3.84
Location						
Nonmetropolitan	3.00	4.19	6.18	4.82	12.03	.
Metropolitan—						
Less than 1,000,000	1.66	3.95	3.44	2.62	5.72	4.40
1,000,000 and over	1.54	4.04	2.47	3.18	4.75	3.38
Employment Status						
Self-employed	1.18	2.47	2.26	2.09	3.73	2.71
Employee	2.21	6.08	3.43	4.60	5.62	6.23
Physician Age						
Less than 36 years	3.02	4.94	4.21	11.39	8.91	5.72
36-45 years	1.65	3.74	2.78	2.83	5.97	4.37
46-55 years	2.33	5.81	5.92	3.57	6.97	5.20
56-65 years	2.69	6.16	3.96	4.68	8.22	6.60
66 or more years	3.26	5.91	6.14	4.41	.	6.97

Table 18. **Mean Number of Office Visits per Week, 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	95.8	95.4	89.4	86.6	80.2	77.4	73.0	73.5	75.7
Specialty									
General/Family Practice	126.5	129.9	119.0	113.8	116.2	106.3	99.5	101.8	106.3
Internal Medicine	72.0	72.2	68.1	65.2	63.4	60.9	57.5	57.2	60.0
Surgery	76.9	75.1	74.0	69.0	66.0	68.2	68.1	68.0	69.8
Pediatrics	122.1	118.0	115.2	123.2	99.7	105.1	96.0	96.9	100.7
Obstetrics/Gynecology	98.3	102.8	100.6	97.4	92.5	85.3	84.3	84.5	85.2
Census Division									
New England	79.4	76.0	71.3	74.2	77.2	70.5	62.5	59.1	70.3
Middle Atlantic	82.1	86.0	79.8	79.4	72.6	70.2	64.1	66.5	67.6
East North Central	106.4	97.1	95.2	89.5	78.4	77.2	74.0	76.6	75.5
West North Central	105.5	106.0	95.5	92.7	85.5	89.8	80.6	78.9	80.0
South Atlantic	96.1	94.2	90.6	88.2	80.6	79.5	77.2	78.4	74.8
East South Central	122.1	132.1	117.0	108.5	87.9	90.1	94.8	93.7	92.5
West South Central	110.8	100.5	94.2	102.5	91.4	87.0	80.8	78.8	81.6
Mountain	90.0	96.8	91.7	81.8	84.4	75.2	73.6	67.3	75.7
Pacific	91.5	95.8	86.7	80.8	77.7	70.1	65.0	67.5	75.6
Type of Practice									
Solo	95.4	94.0	86.0	85.4	81.2	79.3	76.6	78.7	79.2
Non-solo	96.2	97.5	93.2	87.8	79.2	75.8	69.6	69.0	72.9
Location									
Nonmetropolitan	122.2	122.4	109.2	107.3	106.0	97.3	96.9	92.9	92.5
Metropolitan—									
Less than 1,000,000	99.6	97.8	94.5	91.0	82.8	82.1	77.0	76.6	78.5
1,000,000 and over	86.2	86.8	80.6	78.4	72.1	67.8	64.1	66.5	69.1
Physician Age									
Less than 36 years	84.1	87.0	76.0	73.8	64.3	68.2	63.0	59.7	69.8
36-45 years	100.8	91.8	87.5	85.7	76.9	73.1	66.7	69.9	72.7
46-55 years	105.7	105.2	99.3	97.0	87.7	85.0	83.1	79.4	81.3
56-65 years	96.7	102.5	98.3	92.8	90.5	87.1	83.7	83.5	80.5
66 or more years	71.8	76.3	70.7	70.7	79.8	66.7	63.9	69.8	71.1

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. 1976, 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

[a] Data, other than in the specialty breakdown, are based on responses from physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 18 (continued). **Standard Error of the Mean Number of Office Visits per Week, 1976, 1978-80, 1982-86[a]**

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	1.12	1.24	1.08	0.95	1.12	1.10	1.04	1.05	1.07
Speciality									
General/Family Practice	2.36	2.63	2.25	1.97	2.52	2.31	2.26	2.17	2.37
Internal Medicine	1.63	2.36	1.72	1.38	2.14	1.98	1.96	2.11	1.96
Surgery	1.45	1.88	1.74	1.40	1.49	1.89	1.75	1.76	1.93
Pediatrics	3.88	4.11	3.44	3.48	3.67	3.95	3.55	3.53	3.53
Obstetrics/Gynecology	2.64	3.36	3.84	2.36	2.89	2.68	2.67	2.32	2.58
Census Division									
New England	3.16	3.42	3.29	3.62	4.51	3.56	4.03	3.98	4.48
Middle Atlantic	2.20	2.81	2.23	2.39	2.92	3.14	2.58	2.69	2.33
East North Central	3.73	2.94	2.48	2.47	2.53	2.54	2.65	2.77	2.70
West North Central	3.77	5.08	5.92	3.34	4.24	5.19	3.75	3.65	3.61
South Atlantic	2.80	3.29	2.51	2.31	2.65	2.59	2.46	2.38	2.70
East South Central	5.92	7.53	6.12	4.98	4.76	4.95	4.89	5.29	5.03
West South Central	3.99	4.38	3.72	3.56	4.15	3.70	3.44	3.44	3.26
Mountain	3.99	5.52	4.57	3.56	4.93	4.40	4.60	4.12	4.48
Pacific	2.12	2.64	2.47	1.91	2.58	2.23	2.25	2.32	2.73
Type of Practice									
Solo	1.45	1.67	1.36	1.28	1.51	1.59	1.42	1.53	1.46
Non-solo	1.73	1.81	1.70	1.40	1.67	1.53	1.51	1.44	1.52
Location									
Nonmetropolitan	3.52	4.46	3.13	3.03	3.83	3.11	2.98	3.02	3.00
Metropolitan—									
Less than 1,000,000	1.63	1.86	1.64	1.41	1.69	1.72	1.64	1.65	1.66
1,000,000 and over	1.66	1.68	1.57	1.37	1.56	1.57	1.45	1.50	1.54
Physician Age									
Less than 36 years	3.63	4.54	2.61	2.53	2.73	2.98	2.71	2.49	3.02
36-45 years	2.50	2.26	1.84	1.84	2.00	1.89	1.82	1.78	1.65
46-55 years	2.01	2.33	2.02	1.93	2.37	2.61	2.28	2.33	2.33
56-65 years	2.08	2.63	2.88	1.99	2.54	2.34	2.25	2.50	2.69
66 or more years	2.43	3.22	2.58	2.34	3.14	2.43	2.66	2.84	3.26

Table 19. **Mean Number of Visits on Hospital Rounds per Week, 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	25.8	18.0	37.7	27.7	21.1	23.7
Census Division						
New England	20.9	.	27.0	24.0	.	.
Middle Atlantic	27.2	12.9	38.2	35.4	15.3	18.7
East North Central	29.5	22.3	42.4	26.0	31.7	26.5
West North Central	26.3	18.8	38.5	28.6	.	.
South Atlantic	27.6	17.2	47.1	29.3	18.8	19.0
East South Central	33.7	24.7	50.7	41.3	.	.
West South Central	28.0	27.3	43.7	26.1	23.1	26.4
Mountain	21.7	12.6	26.7	25.5	.	.
Pacific	17.1	10.4	24.4	18.7	19.8	13.5
Type of Practice						
Solo	22.6	18.4	36.3	20.8	15.0	18.8
Non-solo	28.3	17.6	38.7	34.7	24.1	28.0
Location						
Nonmetropolitan	26.4	22.3	41.8	30.8	24.3	.
Metropolitan—						
Less than 1,000,000	29.1	18.8	45.1	31.3	25.3	28.0
1,000,000 and over	22.7	14.0	32.2	23.3	17.0	19.0
Employment Status						
Self-employed	26.6	20.0	39.8	26.5	19.2	22.5
Employee	23.1	11.8	31.6	35.2	25.3	32.3
Physician Age						
Less than 36 years	27.6	17.0	37.4	32.3	39.3	35.2
36-45 years	28.7	19.3	41.7	30.3	18.8	24.7
46-55 years	27.0	17.3	42.3	27.5	21.3	22.8
56-65 years	21.2	21.3	26.1	24.9	11.1	18.7
66 or more years	16.3	12.5	22.3	21.1	.	15.6

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 19 (continued). **Standard Error of the Mean Number of Visits on Hospital Rounds per Week , 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.65	0.94	1.70	1.27	2.34	1.26
Census Division						
New England	2.05	.	4.15	4.40	.	.
Middle Atlantic	1.70	2.32	3.39	5.07	2.30	1.90
East North Central	1.94	2.36	3.64	3.18	11.10	4.10
West North Central	2.42	2.14	8.40	4.76	.	.
South Atlantic		1.81	2.36	6.11	2.77	3.33
2.07						
East South Central	2.63	4.60	7.31	5.55	.	.
West South Central	1.88	3.67	6.95	3.05	4.52	3.00
Mountain	2.06	2.06	3.81	5.18	.	.
Pacific	1.07	1.23	3.00	1.62	5.52	1.58
Type of Practice						
Solo	0.77	1.31	2.37	1.16	1.37	1.46
Non-solo	1.00	1.36	2.38	2.23	3.35	1.95
Location						
Nonmetropolitan	1.48	1.98	5.23	3.37	2.79	.
Metropolitan—						
Less than 1,000,000	1.15	1.56	3.46	1.81	4.90	2.34
1,000,000 and over	0.86	1.39	1.79	2.00	2.13	1.28
Employment Status						
Self-employed	0.68	1.09	2.04	1.18	1.34	1.12
Employee	1.65	1.81	2.99	5.53	6.86	6.54
Physician Age						
Less than 36 years	2.37	2.17	3.47	8.14	12.30	6.35
36-45 years	1.10	1.82	2.66	2.17	2.61	1.96
46-55 years	1.45	2.18	5.39	2.28	2.20	2.20
56-65 years	1.09	2.41	2.34	2.26	1.82	2.08
66 or more years	1.30	1.80	3.44	3.09	.	3.66

Table 20. **Mean Number of Visits on Hospital Rounds per Week , 1976, 1982-86**[a]

	1976	1982	1983	1984	1985	1986
All Physicians	35.0	32.3	32.9	28.4	27.2	25.8
Specialty						
General/Family Practice	28.7	28.8	28.3	24.4	22.0	18.0
Internal Medicine	43.8	41.1	42.8	37.6	35.3	37.7
Surgery	40.6	40.8	39.2	33.9	31.9	27.7
Pediatrics	16.5	24.6	25.3	18.6	21.0	21.1
Obstetrics/Gynecology	29.0	27.4	27.3	23.9	23.7	23.7
Census Division						
New England	31.7	27.3	30.3	26.1	22.5	20.9
Middle Atlantic	33.8	31.7	34.4	30.8	29.5	27.2
East North Central	40.1	37.7	36.5	30.3	27.5	29.5
West North Central	43.6	37.9	39.6	35.2	27.5	26.3
South Atlantic	35.3	35.4	31.8	28.5	27.5	27.6
East South Central	51.6	44.3	47.8	37.5	44.3	33.7
West South Central	41.1	34.2	39.1	32.9	33.9	28.0
Mountain	28.9	27.5	26.4	22.6	22.4	21.7
Pacific	23.9	19.9	21.0	18.3	17.6	17.1
Type of Practice						
Solo	29.7	29.1	28.7	25.9	23.9	22.6
Non-solo	40.6	35.7	36.5	30.7	30.0	28.3
Location						
Nonmetropolitan	39.1	43.1	42.9	36.6	32.4	26.4
Metropolitan—						
Less than 1,000,000	38.8	35.1	34.9	30.2	29.4	29.1
1,000,000 and over	30.6	27.1	28.4	24.9	24.1	22.7
Physician Age						
Less than 36 years	35.1	33.8	30.9	28.3	25.7	27.6
36-45 years	40.5	33.7	36.2	30.9	29.3	28.7
46-55 years	38.1	34.4	35.1	31.1	30.5	27.0
56-65 years	31.4	31.4	30.7	25.4	24.9	21.2
66 or more years	20.4	19.6	19.5	17.1	15.6	16.3

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. 1976 AMA Periodic Survey of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 20 (continued). **Standard Error of the Mean Number of Visits on Hospital Rounds per Week, 1976, 1982-86**[a]

	1976	1982	1983	1984	1985	1986
All Physicians	0.65	0.76	0.72	0.61	0.67	0.65
Specialty						
General/Family Practice	1.04	1.31	1.26	1.20	1.14	0.94
Internal Medicine	1.38	1.88	1.75	1.64	1.90	1.70
Surgery	1.42	1.58	1.49	1.23	1.39	1.27
Pediatrics	1.08	2.18	2.19	1.22	1.91	2.34
Obstetrics/Gynecology	1.63	1.51	1.91	1.18	1.25	1.26
Census Division						
New England	2.18	2.77	2.66	2.37	2.14	2.05
Middle Atlantic	1.67	1.93	2.20	1.74	2.02	1.70
East North Central	1.54	2.01	1.74	1.62	1.54	1.94
West North Central	2.71	2.72	2.45	2.45	2.04	2.42
South Atlantic	1.83	1.98	1.59	1.46	1.50	1.81
East South Central	3.41	3.60	4.26	2.99	3.95	2.63
West South Central	2.30	2.46	2.55	1.91	2.50	1.88
Mountain	2.06	2.64	2.50	1.98	2.34	2.06
Pacific	1.17	1.39	1.10	1.03	1.04	1.07
Type of Practice						
Solo	0.77	1.01	0.91	0.82	0.81	0.77
Non-solo	1.06	1.15	1.10	0.90	1.03	1.00
Location						
Nonmetropolitan	2.03	2.23	2.29	1.92	2.13	1.48
Metropolitan—						
Less than 1,000,000	1.09	1.24	1.17	0.96	1.12	1.15
1,000,000 and over	0.85	1.04	0.96	0.86	0.89	0.86
Physician Age						
Less than 36 years	2.45	2.11	1.88	1.68	1.71	2.37
36-45 years	1.34	1.37	1.37	1.16	1.17	1.10
46-55 years	1.22	1.67	1.63	1.40	1.61	1.45
56-65 years	1.17	1.75	1.39	1.14	1.42	1.09
66 or more years	1.49	1.33	1.56	1.28	1.24	1.30

Table 21. **Mean Number of Surgical Procedures per Week, 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	3.5	1.2	1.1	8.3	0.7	8.5
Census Division						
New England	2.7	.	0.2	8.6	.	.
Middle Atlantic	3.0	0.3	0.9	8.3	0.6	8.2
East North Central	3.8	1.4	1.5	8.9	0.7	9.2
West North Central	3.9	2.0	1.4	10.0	.	.
South Atlantic	3.6	0.4	2.0	8.0	0.5	9.6
East South Central	4.3	0.5	1.2	11.1	.	.
West South Central	3.6	1.8	0.5	7.6	0.9	8.2
Mountain	3.9	2.3	0.5	7.9	.	.
Pacific	3.1	1.6	1.2	7.0	1.2	6.5
Type of Practice						
Solo	3.2	1.2	0.7	7.0	0.7	7.4
Non-solo	3.7	1.2	1.5	9.6	0.7	9.5
Location						
Nonmetropolitan	3.4	1.7	0.0	9.0	1.1	.
Metropolitan—						
Less than 1,000,000	4.1	1.0	1.4	9.3	0.9	9.9
1,000,000 and over	3.0	1.0	1.1	7.1	0.5	7.2
Employment Status						
Self-employed	3.9	1.3	1.2	8.3	0.8	8.6
Employee	2.2	0.7	1.0	8.6	0.5	7.6
Physician Age						
Less than 36 years	3.1	1.6	2.0	9.8	0.7	8.0
36-45 years	3.5	1.4	1.1	8.8	0.8	9.7
46-55 years	4.3	0.9	1.3	8.9	0.6	8.6
56-65 years	3.0	1.1	0.6	7.0	0.5	6.7
66 or more years	2.5	0.7	0.2	6.3	.	8.0

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology, but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 21 (continued). **Standard Error of the Mean Number of Surgical Procedures per Week, 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.11	0.09	0.20	0.25	0.10	0.35
Census Division						
New England	0.43	.	0.17	1.15	.	.
Middle Atlantic	0.27	0.10	0.38	0.72	0.18	0.93
East North Central	0.30	0.25	0.74	0.54	0.21	0.88
West North Central	0.41	0.29	0.74	1.01	.	.
South Atlantic	0.33	0.14	0.64	0.78	0.24	1.30
East South Central	0.51	0.27	0.87	1.05	.	.
West South Central	0.28	0.33	0.28	0.66	0.30	0.61
Mountain	0.41	0.48	0.36	0.87	.	.
Pacific	0.20	0.28	0.36	0.37	0.34	0.57
Type of Practice						
Solo	0.13	0.13	0.17	0.26	0.18	0.47
Non-solo	0.17	0.13	0.33	0.43	0.12	0.51
Location						
Nonmetropolitan	0.29	0.22	0.03	0.79	0.33	.
Metropolitan—						
Less than 1,000,000	0.19	0.13	0.32	0.44	0.17	0.67
1,000,000 and over	0.14	0.15	0.30	0.29	0.12	0.35
Employment Status						
Self-employed	0.13	0.11	0.21	0.27	0.12	0.39
Employee	0.21	0.14	0.52	0.75	0.17	0.77
Physician Age						
Less than 36 years	0.35	0.24	0.96	1.06	0.21	0.89
36-45 years	0.17	0.17	0.26	0.33	0.17	0.67
46-55 years	0.27	0.24	0.44	0.57	0.14	0.59
56-65 years	0.22	0.23	0.27	0.50	0.26	0.58
66 or more years	0.30	0.18	0.17	0.89	.	1.62

Table 22. **Mean Number of Surgical Procedures per Week, 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	3.1	3.3	3.2	3.0	3.5
Specialty					
General/Family Practice	1.4	1.4	1.1	1.1	1.2
Internal Medicine	0.5	0.7	0.8	0.7	1.1
Surgery	7.0	7.5	7.6	7.1	8.3
Pediatrics	0.5	0.7	0.7	0.6	0.7
Obstetrics/Gynecology	8.2	8.0	7.6	7.2	8.5
Census Division					
New England	2.8	2.9	3.0	2.4	2.7
Middle Atlantic	2.8	3.2	2.9	2.7	3.0
East North Central	3.4	3.9	3.6	2.7	3.8
West North Central	3.9	3.4	4.3	3.4	3.9
South Atlantic	3.1	3.1	3.3	3.1	3.6
East South Central	3.5	3.7	3.5	3.8	4.3
West South Central	3.2	3.7	3.5	3.5	3.6
Mountain	3.3	3.5	3.0	3.7	3.9
Pacific	2.8	2.8	2.5	2.7	3.1
Type of Practice					
Solo	2.7	3.2	3.0	2.9	3.2
Non-solo	3.6	3.4	3.4	3.1	3.7
Location					
Nonmetropolitan	3.3	3.3	3.4	3.2	3.4
Metropolitan—					
Less than 1,000,000	3.4	3.8	3.7	3.3	4.1
1,000,000 and over	2.8	2.8	2.7	2.7	3.0
Physician Age					
Less than 36 years	2.4	2.3	2.3	2.0	3.1
36-45 years	3.5	3.5	3.5	3.3	3.5
46-55 years	3.6	3.9	3.7	3.7	4.3
56-65 years	3.0	3.4	3.3	2.8	3.0
66 or more years	1.7	1.7	2.0	1.5	2.5

Source: 1982-86, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active nonfederal patient care physicians excluding residents.

a. Data, other than in specialty breakdown, include physicians in all specialties except psychiatry, radiology, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 22 (continued). **Standard Error of the Mean Number of Surgical Procedures per Week, 1982-86**[a]

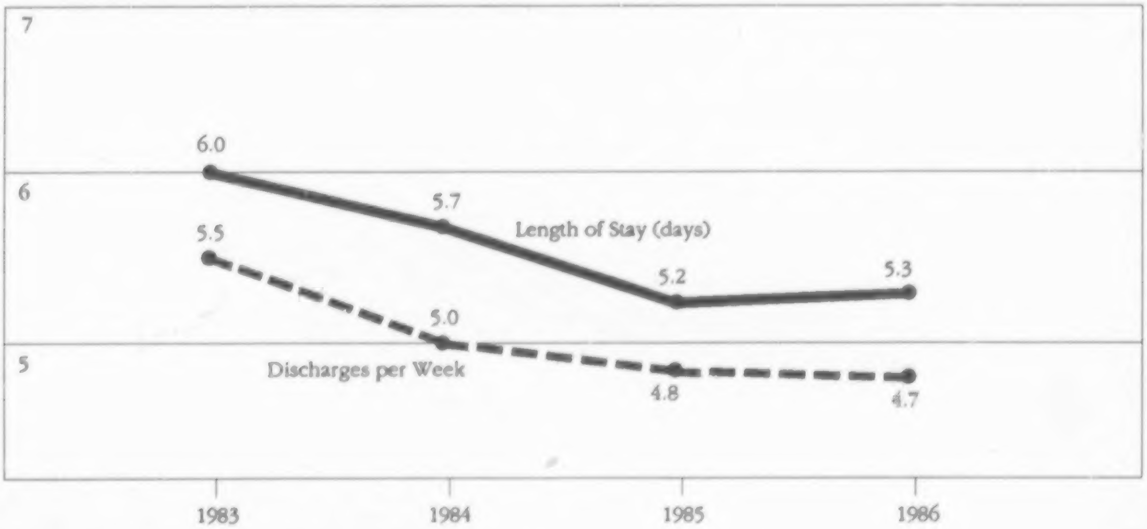
	1982	1983	1984	1985	1986
All Physicians	0.10	0.10	0.10	0.09	0.11
Specialty					
General/Family Practice	0.17	0.11	0.08	0.14	0.09
Internal Medicine	0.11	0.17	0.13	0.11	0.20
Surgery	0.21	0.19	0.19	0.18	0.25
Pediatrics	0.09	0.12	0.09	0.10	0.10
Obstetrics/Gynecology	0.35	0.31	0.27	0.27	0.35
Census Division					
New England	0.39	0.39	0.43	0.35	0.43
Middle Atlantic	0.26	0.27	0.31	0.20	0.27
East North Central	0.28	0.29	0.23	0.20	0.30
West North Central	0.36	0.36	0.42	0.35	0.41
South Atlantic	0.24	0.23	0.24	0.20	0.33
East South Central	0.44	0.39	0.38	0.50	0.51
West South Central	0.30	0.26	0.28	0.40	0.28
Mountain	0.41	0.60	0.34	0.37	0.41
Pacific	0.28	0.18	0.18	0.23	0.20
Type of Practice					
Solo	0.12	0.14	0.12	0.13	0.13
Non-solo	0.18	0.14	0.16	0.13	0.17
Location					
Nonmetropolitan	0.23	0.23	0.26	0.27	0.29
Metropolitan—					
Less than 1,000,000	0.18	0.17	0.16	0.16	0.19
1,000,000 and over	0.14	0.14	0.14	0.12	0.14
Physician Age					
Less than 36 years	0.32	0.23	0.21	0.20	0.35
36-45 years	0.21	0.19	0.21	0.17	0.17
46-55 years	0.22	0.23	0.20	0.23	0.27
56-65 years	0.19	0.20	0.19	0.18	0.22
66 or more years	0.17	0.18	0.21	0.16	0.30

Hospital Utilization by Physicians

Physicians have a significant influence on the utilization of hospital resources. Two measures indicating the extent of hospital utilization of physicians' patients are the number of patients discharged from the hospital and the average length of their hospital stays.

Declining hospital utilization is reflected in the trend for both the average number of discharges per physician per week and the length of stay of patients (see Figure 7). However, it appears that hospital utilization may be leveling off. While weekly discharges declined from 5.5 to 4.8 and length of stay declined from an average of 6.0 to 5.2 between 1983 and 1985, changes were much more moderate from 1985 to 1986. Figure 8 shows average discharge rates and lengths of stay of physicians by specialty. General/family practitioners have the fewest hospitalized patients, but their patients have the second longest average lengths of stay. At the other extreme, obstetricians/gynecologists have the most hospitalized patients and their patients have the shortest stays. Figure 9 indicates that geographic differences in average hospital lengths of stay are substantial.

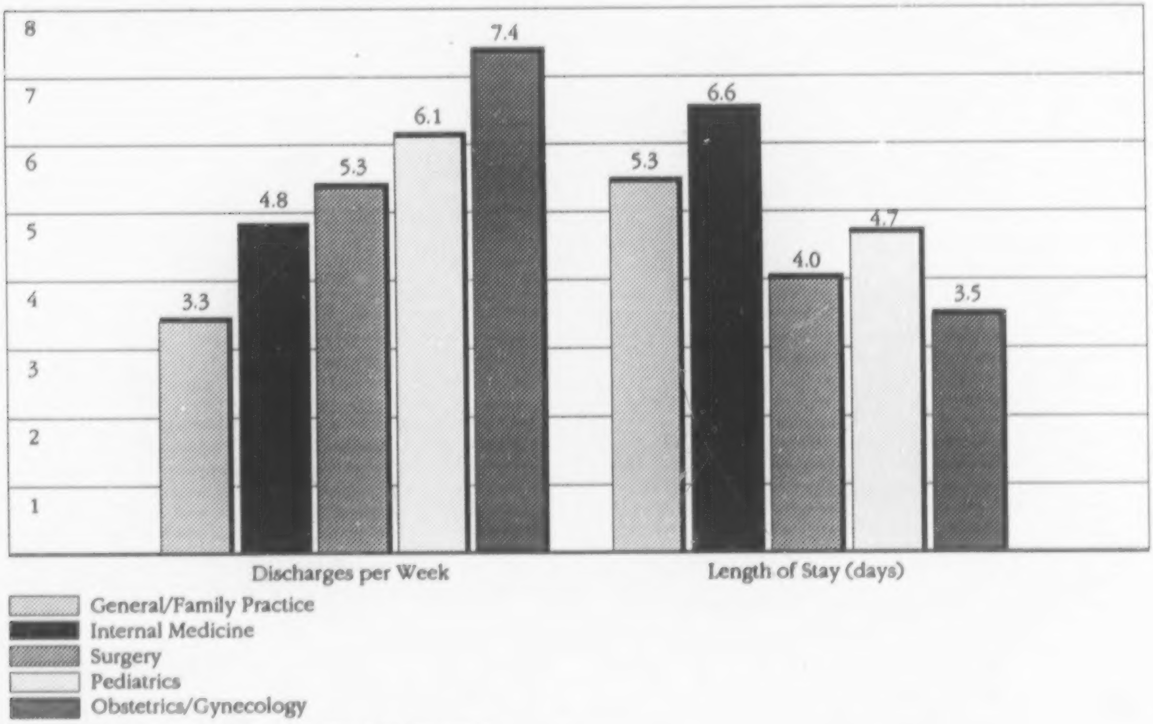
Figure 7. **Average Hospital Discharges per Week and Length of Stay of Discharged Patients (in days) for All Physicians, 1983-1986**[a]



Source: AMA Socioeconomic Monitoring System 1983-1986 core surveys.

a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

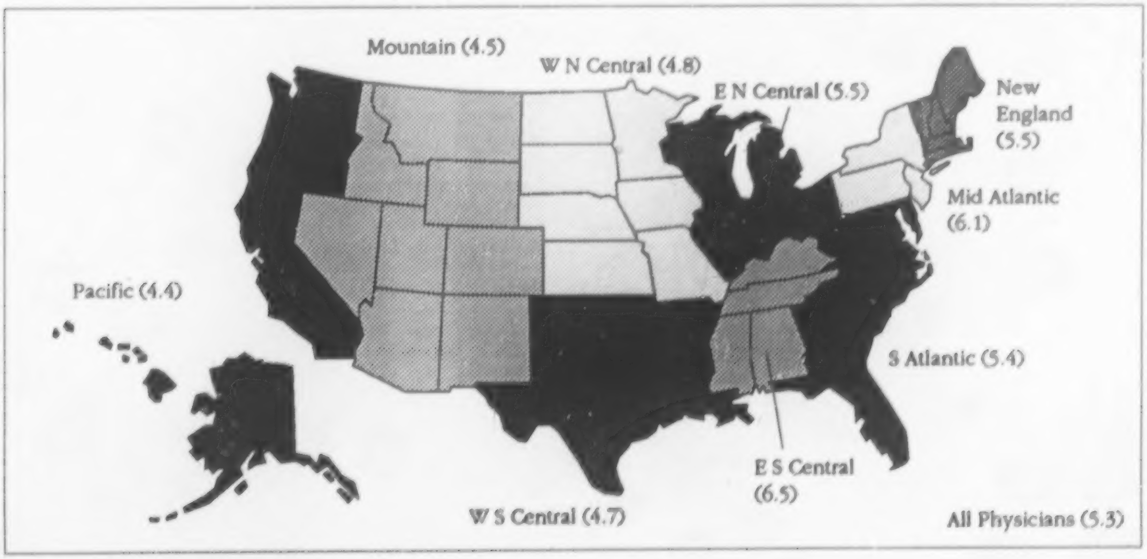
Figure 8. **Average Hospital Discharges per Week and Length of Stay of Discharged Patients (in days) by Specialty, 1986**[a]



Source: AMA Socioeconomic Monitoring System 1986 core survey.

a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Figure 9. **Average Length of Hospital Stay per Discharged Patient (in days) by Census Division, 1986**[a]


Mountain (4.5)
W N Central (4.8)
E N Central (5.5)
New England (5.5)
Mid Atlantic (6.1)
Pacific (4.4)
S Atlantic (5.4)
E S Central (6.5)
W S Central (4.7)
All Physicians (5.3)

Source: AMA Socioeconomic Monitoring System 1986 core survey.

a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Table 23. **Mean Number of Patients Discharged from the Hospital per Week, 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	4.7	3.3	4.8	5.3	6.1	7.4
Census Division						
New England	4.2	.	3.3	4.3	.	.
Middle Atlantic	4.6	1.7	4.3	4.9	6.8	7.6
East North Central	5.0	3.8	6.0	5.5	5.2	7.1
West North Central	4.7	3.9	4.0	5.7	.	.
South Atlantic	5.0	3.4	5.3	5.7	4.3	7.5
East South Central	7.0	5.2	5.8	9.3	.	.
West South Central	5.6	4.5	6.6	4.5	8.0	9.0
Mountain	4.0	3.1	4.0	5.0	.	.
Pacific	3.4	2.4	3.4	4.6	6.2	4.2
Type of Practice						
Solo	4.3	3.5	4.9	4.3	5.2	6.9
Non-solo	5.1	3.2	4.7	6.4	6.6	7.8
Location						
Nonmetropolitan	5.5	4.4	7.4	7.1	6.5	.
Metropolitan—						
Less than 1,000,000	5.5	3.6	5.7	6.2	6.3	8.5
1,000,000 and over	3.9	2.2	3.9	4.1	5.9	6.5
Employment Status						
Self-employed	5.1	3.7	5.3	5.4	6.4	7.6
Employee	3.8	2.1	3.4	5.0	5.5	5.8
Physician Age						
Less than 36 years	4.4	3.0	5.4	4.6	7.9	6.6
36-45 years	5.0	4.1	4.6	5.2	5.6	8.8
46-55 years	5.2	3.3	6.1	6.1	5.2	7.8
56-65 years	4.1	3.3	3.7	4.7	5.3	5.0
66 or more years	4.2	2.4	2.9	4.9	.	7.4

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology, but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 23 (continued). **Standard Error of the Mean Number of Patients Discharged from the Hospital per Week, 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.14	0.17	0.21	0.22	0.57	0.46
Census Division						
New England	0.70	*	0.62	0.57	*	*
Middle Atlantic	0.48	0.28	0.40	0.44	1.89	1.69
East North Central	0.24	0.40	0.51	0.54	0.69	0.69
West North Central	0.45	0.45	0.65	0.80	*	*
South Atlantic	0.37	0.56	0.55	0.47	0.66	0.90
East South Central	0.67	0.71	1.01	1.91	*	*
West South Central	0.44	0.52	1.29	0.44	1.53	1.19
Mountain	0.37	0.58	0.55	0.96	*	*
Pacific	0.21	0.28	0.38	0.40	1.50	0.41
Type of Practice						
Solo	0.15	0.24	0.34	0.27	0.54	0.79
Non-solo	0.22	0.24	0.27	0.33	0.80	0.47
Location						
Nonmetropolitan	0.34	0.36	1.51	0.89	0.96	*
Metropolitan—						
Less than 1,000,000	0.24	0.30	0.36	0.37	0.70	0.89
1,000,000 and over	0.19	0.19	0.22	0.23	1.00	0.50
Employment Status						
Self-employed	0.14	0.20	0.25	0.24	0.48	0.50
Employee	0.39	0.28	0.35	0.51	1.48	0.99
Physician Age						
Less than 36 years	0.29	0.31	0.52	1.01	1.10	0.90
36-45 years	0.25	0.39	0.29	0.27	0.69	0.63
46-55 years	0.25	0.41	0.68	0.48	0.57	0.75
56-65 years	0.27	0.36	0.37	0.38	1.61	0.63
66 or more years	0.67	0.31	0.39	1.03	*	3.56

Table 24. **Mean Number of Patients Discharged from the Hospital per Week, 1983-86**[a]

	1983	1984	1985	1986
All Physicians	5.5	5.0	4.8	4.7
Specialty				
General/Family Practice	4.5	4.0	3.9	3.3
Internal Medicine	5.2	4.6	4.7	4.8
Surgery	6.1	6.1	5.4	5.3
Pediatrics	5.8	5.7	5.1	6.1
Obstetrics/Gynecology	7.7	6.7	6.8	7.4
Census Division				
New England	6.0	4.0	3.7	4.2
Middle Atlantic	5.1	4.2	4.5	4.6
East North Central	6.1	6.3	5.2	5.0
West North Central	5.9	5.7	5.8	4.7
South Atlantic	5.4	5.1	4.9	5.0
East South Central	7.1	6.5	7.0	7.0
West South Central	6.7	5.8	5.9	5.6
Mountain	4.7	5.0	3.6	4.0
Pacific	4.0	3.4	3.4	3.4
Type of Practice				
Solo	4.8	4.4	4.2	4.3
Non-solo	6.1	5.5	5.2	5.1
Location				
Nonmetropolitan	7.1	6.8	6.1	5.5
Metropolitan—				
Less than 1,000,000	6.0	5.3	4.9	5.5
1,000,000 and over	4.6	4.3	4.3	3.9
Physician Age				
Less than 36 years	5.4	5.1	5.5	4.4
36-45 years	5.7	5.4	4.9	5.0
46-55 years	5.7	5.3	5.0	5.2
56-65 years	5.8	4.3	4.4	4.1
66 or more years	3.2	2.9	2.9	4.2

Source: 1983-86, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active nonfederal patient care physicians excluding residents.

[a] Data, other than in specialty breakdown, include physicians in all specialties except psychiatry, radiology, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 24 (continued). **Standard Error of the Mean Number of Patients Discharged from the Hospital per Week, 1983-86**[a]

	1983	1984	1985	1986
All Physicians	0.15	0.14	0.15	0.14
Specialty				
General/Family Practice	0.20	0.18	0.21	0.17
Internal Medicine	0.27	0.20	0.34	0.21
Surgery	0.20	0.19	0.19	0.22
Pediatrics	0.46	0.43	0.32	0.57
Obstetrics/Gynecology	0.41	0.33	0.33	0.46
Census Division				
New England	1.09	0.58	0.40	0.70
Middle Atlantic	0.45	0.26	0.35	0.48
East North Central	0.35	0.62	0.55	0.24
West North Central	0.36	0.33	0.59	0.45
South Atlantic	0.31	0.31	0.31	0.37
East South Central	0.57	0.53	0.54	0.67
West South Central	0.54	0.32	0.55	0.44
Mountain	0.58	0.68	0.39	0.37
Pacific	0.24	0.17	0.18	0.21
Type of Practice				
Solo	0.16	0.13	0.14	0.15
Non-solo	0.25	0.25	0.25	0.22
Location				
Nonmetropolitan	0.35	0.36	0.57	0.34
Metropolitan—				
Less than 1,000,000	0.25	0.17	0.20	0.24
1,000,000 and over	0.21	0.25	0.24	0.19
Physician Age				
Less than 36 years	0.47	0.43	0.58	0.29
36-45 years	0.28	0.32	0.29	0.25
46-55 years	0.24	0.22	0.21	0.25
56-65 years	0.38	0.19	0.25	0.27
66 or more years	0.23	0.21	0.22	0.67

Table 25. **Mean Number of Days for Hospital Stays per Patient, 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	5.3	5.3	6.6	4.0	4.7	3.5
Census Division						
New England	5.5	.	7.7	3.9	.	.
Middle Atlantic	6.1	5.4	7.7	4.7	5.9	3.7
East North Central	5.5	6.0	5.8	4.4	6.0	3.3
West North Central	4.8	5.0	6.0	3.6	.	.
South Atlantic	5.4	6.6	7.0	3.9	4.3	3.5
East South Central	6.5	5.0	6.8	4.0	.	.
West South Central	4.7	4.7	6.3	4.0	4.8	3.5
Mountain	4.5	3.6	6.1	3.8	.	.
Pacific	4.4	4.6	5.4	3.6	3.4	3.1
Type of Practice						
Solo	4.8	5.2	6.4	3.8	3.4	3.5
Non-solo	5.6	5.4	6.7	4.2	5.4	3.6
Location						
Nonmetropolitan	4.9	4.9	7.3	3.9	3.6	.
Metropolitan—						
Less than 1,000,000	5.4	5.6	6.1	4.1	4.1	3.7
1,000,000 and over	5.3	5.2	6.8	4.0	5.3	3.4
Employment Status						
Self-employed	4.8	5.1	6.2	4.0	3.5	3.6
Employee	7.4	6.0	7.9	4.5	8.6	3.3
Physician Age						
Less than 36 years	5.1	4.1	6.5	4.5	4.9	3.2
36-45 years	5.2	4.3	6.3	3.8	5.4	3.2
46-55 years	5.2	7.1	6.5	3.9	4.2	3.8
56-65 years	5.2	5.5	7.1	4.6	3.4	3.8
66 or more years	6.5	5.7	7.3	4.4	.	.

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology, but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 25 (continued). **Standard Error of the Mean Number of Days for Hospital Stays per Patient, 1986**[a]

	All Physicians[b]	Specialty				
		General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.14	0.21	0.26	0.10	0.62	0.14
Census Division						
New England	0.57	.	1.52	0.47	.	.
Middle Atlantic	0.45	0.32	0.57	0.32	2.40	0.17
East North Central	0.26	0.59	0.27	0.28	1.63	0.16
West North Central	0.29	0.59	0.46	0.36	.	.
South Atlantic	0.35	0.88	1.09	0.19	0.55	0.16
East South Central	1.11	0.31	0.76	0.24	.	.
West South Central	0.22	0.20	0.51	0.26	1.77	0.20
Mountain	0.36	0.34	0.85	0.31	.	.
Pacific	0.18	0.51	0.37	0.20	0.55	0.17
Type of Practice						
Solo	0.10	0.17	0.27	0.12	0.16	0.10
Non-solo	0.24	0.41	0.42	0.15	0.93	0.25
Location						
Nonmetropolitan	0.34	0.18	2.05	0.23	0.24	.
Metropolitan—						
Less than 1,000,000	0.23	0.46	0.28	0.13	0.59	0.30
1,000,000 and over	0.19	0.28	0.33	0.16	1.14	0.10
Employment Status						
Self-employed	0.08	0.21	0.18	0.10	0.20	0.15
Employee	0.67	0.73	1.07	0.34	2.47	0.17
Physician Age						
Less than 36 years	0.32	0.21	0.77	0.51	1.13	0.16
36-45 years	0.22	0.14	0.28	0.14	1.43	0.10
46-55 years	0.23	0.97	0.47	0.17	0.46	0.45
56-65 years	0.26	0.26	1.13	0.24	0.39	0.17
66 or more years	0.89	0.44	0.78	0.35	.	.

Table 26. **Mean Number of Days for Hospital Stays per Patient, 1983-86**[a]

	1983	1984	1985	1986
All Physicians	6.0	5.7	5.2	5.3
Specialty				
General/Family Practice	7.7	5.2	5.1	5.3
Internal Medicine	7.3	7.4	6.5	6.6
Surgery	4.7	4.4	4.3	4.0
Pediatrics	4.4	5.1	4.5	4.7
Obstetrics/Gynecology	3.8	3.8	3.4	3.5
Census Division				
New England	7.4	7.1	5.2	5.5
Middle Atlantic	6.6	6.6	5.8	6.1
East North Central	5.9	5.5	5.7	5.5
West North Central	5.7	5.2	5.1	4.8
South Atlantic	6.6	6.1	5.2	5.4
East South Central	5.3	5.8	5.9	6.5
West South Central	4.9	5.9	4.5	4.7
Mountain	5.5	4.7	4.1	4.5
Pacific	5.8	4.4	4.4	4.4
Type of Practice				
Solo	5.3	5.1	4.8	4.8
Non-solo	6.7	6.3	5.5	5.6
Location				
Nonmetropolitan	5.1	4.6	4.4	4.9
Metropolitan—				
Less than 1,000,000	5.8	5.4	5.2	5.4
1,000,000 and over	6.5	6.3	5.4	5.3
Physician Age				
Less than 36 years	5.7	5.4	5.0	5.1
36-45 years	5.5	5.9	5.2	5.2
46-55 years	6.1	5.4	5.0	5.2
56-65 years	6.7	5.5	5.1	5.2
66 or more years	7.1	6.9	5.7	6.5

Source: 1983-86, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active nonfederal patient care physicians excluding residents.

a. Data, other than in specialty breakdown, include physicians in all specialties except psychiatry, radiology, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 26 (continued). **Standard Error of the Mean Number of Days for Hospital Stays per Patient, 1983-86**[a]

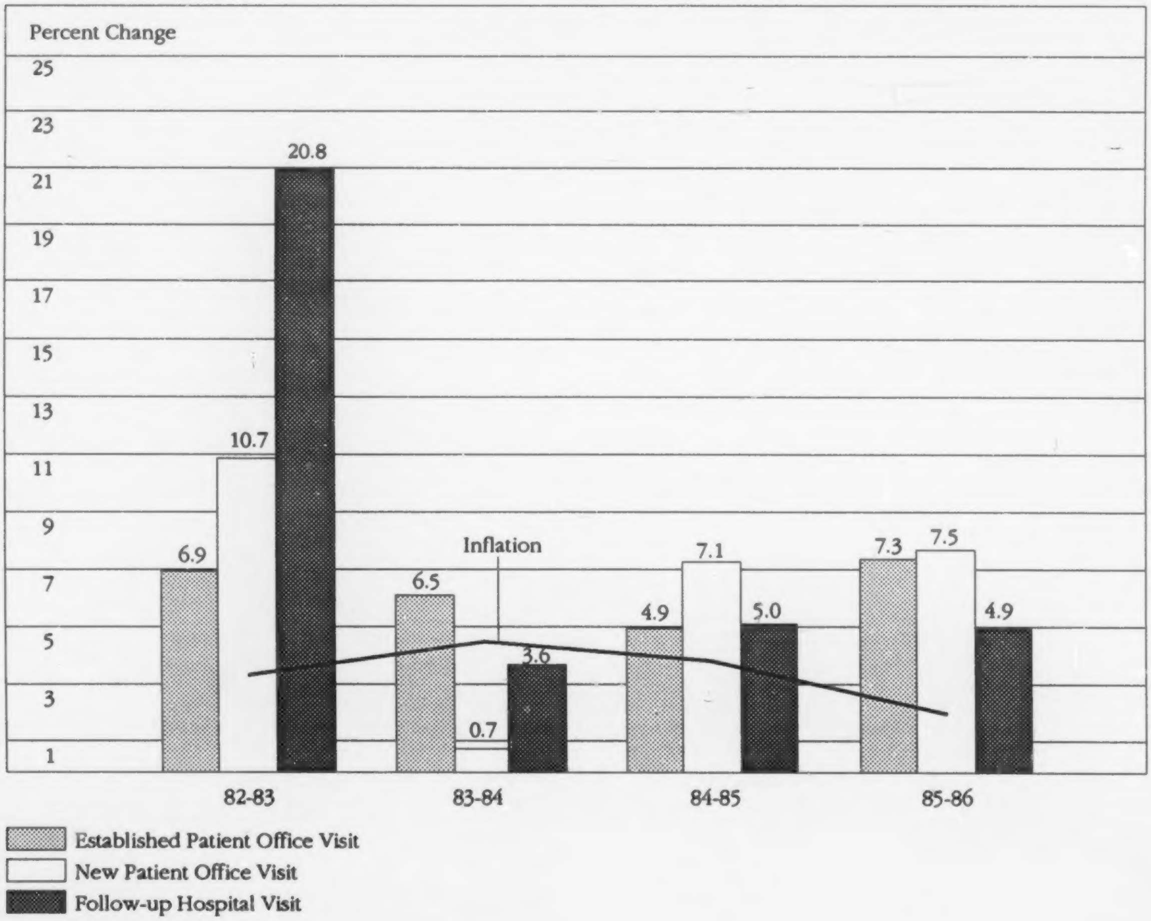
	1983	1984	1985	1986
All Physicians	0.27	0.18	0.10	0.14
Specialty				
General/Family Practice	1.19	0.18	0.19	0.21
Internal Medicine	0.32	0.48	0.18	0.26
Surgery	0.13	0.10	0.14	0.10
Pediatrics	0.31	0.65	0.43	0.62
Obstetrics/Gynecology	0.09	0.08	0.07	0.14
Census Division				
New England	1.62	1.18	0.44	0.57
Middle Atlantic	0.33	0.31	0.30	0.45
East North Central	0.22	0.22	0.30	0.26
West North Central	0.37	0.28	0.37	0.29
South Atlantic	0.85	0.55	0.22	0.35
East South Central	0.25	0.58	0.53	1.11
West South Central	0.17	1.00	0.15	0.22
Mountain	0.45	0.64	0.24	0.36
Pacific	1.18	0.21	0.24	0.18
Type of Practice				
Solo	0.11	0.10	0.11	0.10
Non-solo	0.50	0.35	0.17	0.24
Location				
Nonmetropolitan	0.14	0.09	0.12	0.34
Metropolitan—				
Less than 1,000,000	0.36	0.25	0.17	0.23
1,000,000 and over	0.49	0.33	0.16	0.19
Physician Age				
Less than 36 years	0.28	0.34	0.21	0.32
36-45 years	0.17	0.40	0.20	0.22
46-55 years	0.79	0.32	0.19	0.23
56-65 years	0.79	0.21	0.22	0.26
66 or more years	0.69	0.98	0.30	0.89

Fees for Physician Visits

Office visits with new and established patients and follow-up hospital visits are the most commonly billed physician services and account for a large proportion of physician revenue. Fees reported for these services are "current usual fees" and, therefore, may not reflect discounts allowed under some circumstances, such as assigned Medicare services and services to patients covered by preferred provider organization contracts.

As shown in Figure 10, fees for all three types of visits increased faster than the 1.9% rate of inflation (measured by the all items Consumer Price Index for Urban Consumers) from 1985 to 1986. This increase in fees was, on average, more moderate than that observed from 1982 to 1983, but slightly greater than from 1983 to 1985. Figure 11 indicates that in 1986 the average fee for an established patient office visit reached $30.10 for the entire nation, but ranged from $23.55 in the East South Central states to $34.93 in the Pacific Census Division. Variations in relative fees by type of visit and specialty, using the national average established patient office visit fee as the base of comparison, are shown in Figure 12.

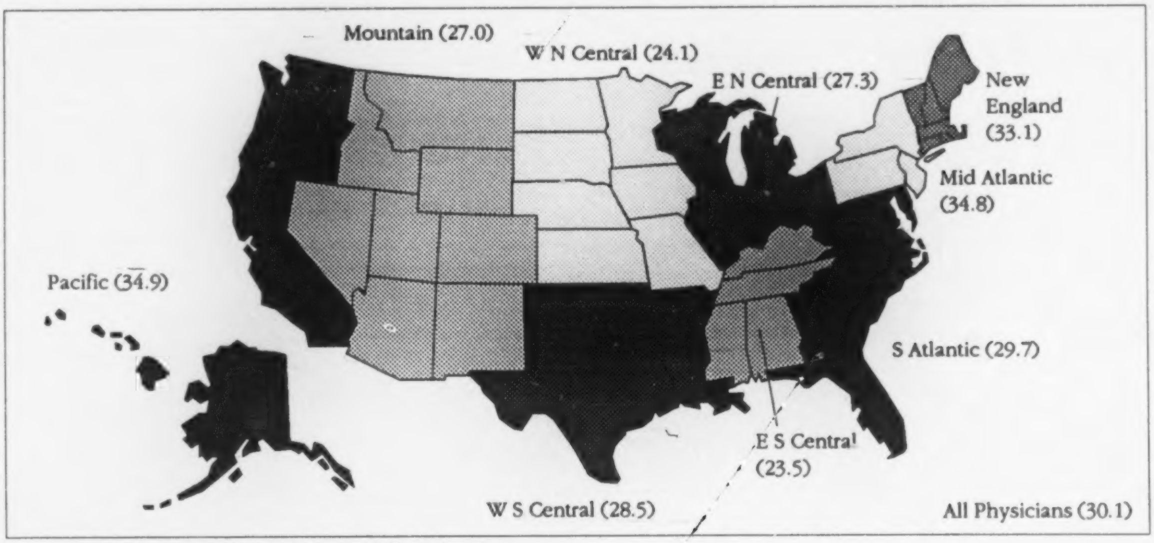
Figure 10. **Percent Change in Average Fees for Selected Types of Visits for All Physicians, 1982-1986[a]**



Source: AMA Socioeconomic Monitoring System 1982-1986 core surveys.

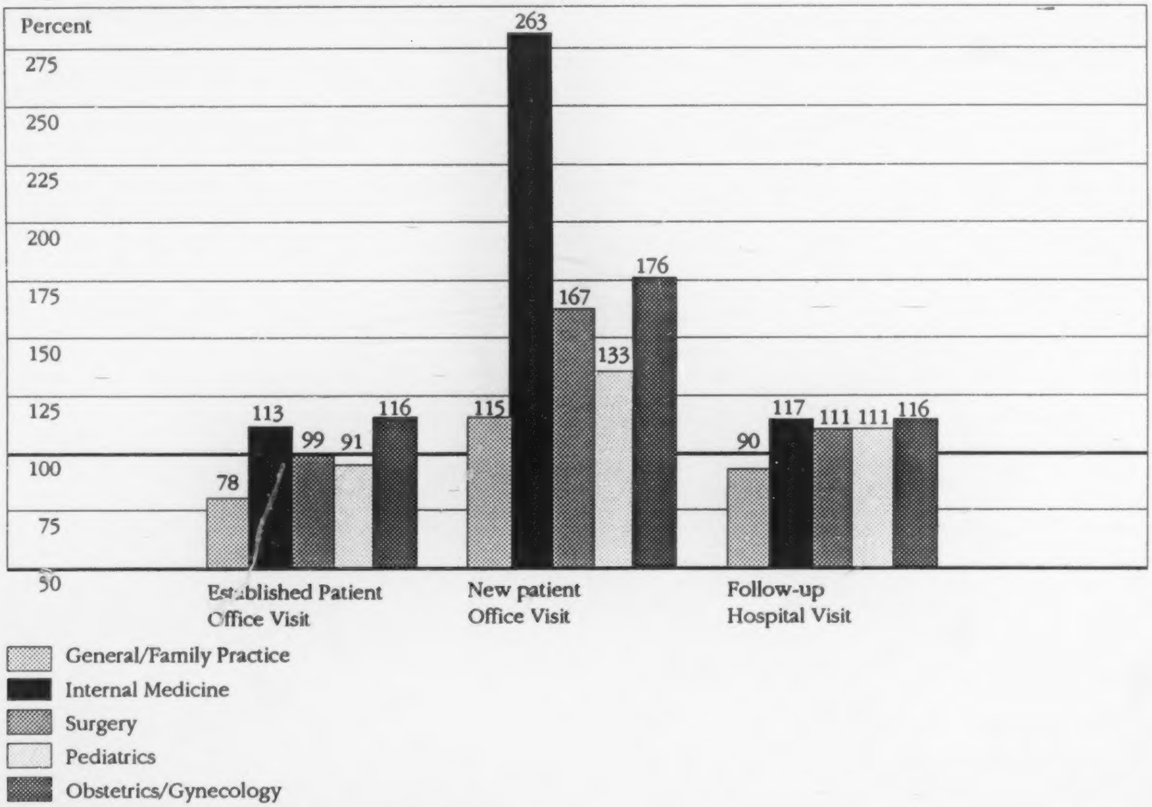
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Figure 11. **Average Fee for an Established Patient Office Visit (in dollars) by Census Division, 1986[a]**


Mountain (27.0)
W N Central (24.1)
E N Central (27.3)
New England (33.1)
Mid Atlantic (34.8)
Pacific (34.9)
S Atlantic (29.7)
E S Central (23.5)
W S Central (28.5)
All Physicians (30.1)

Source: AMA Socioeconomic Monitoring System 1986 core survey.
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Figure 12. **Average Fees by Type of Visit and Specialty as a Percent of the Average Fee for an Established Patient Office Visit for all Physicians, 1986[a]**



Source: AMA Socioeconomic Monitoring System 1986 core survey.
a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Table 27. **Mean Fee for an Office Visit With an Established Patient (in dollars), 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	30.1	23.5	34.0	29.7	27.4	34.8
Census Division						
New England	33.1	.	35.3	32.3	.	.
Middle Atlantic	34.8	25.3	36.8	37.6	27.9	40.0
East North Central	27.3	20.5	32.1	26.1	25.5	30.5
West North Central	24.1	20.0	27.8	24.8	.	.
South Atlantic	29.7	23.5	33.2	29.7	25.0	36.5
East South Central	23.5	19.2	25.8	23.2	.	.
West South Central	28.5	23.3	34.9	27.7	25.3	32.1
Mountain	27.0	24.1	30.0	26.2	.	.
Pacific	34.9	29.0	38.1	34.3	37.3	38.8
Type of Practice						
Solo	29.5	23.4	32.4	31.0	26.0	32.8
Non-solo	30.7	23.6	35.5	28.2	28.3	36.6
Location						
Nonmetropolitan	22.1	19.3	27.1	23.6	23.4	.
Metropolitan—						
Less than 1,000,000	27.5	22.9	29.8	26.5	25.2	34.3
1,000,000 and over	34.7	27.7	37.9	34.4	30.1	37.2
Employment Status						
Self-employed	29.8	23.3	33.5	29.8	26.4	34.5
Employee	31.8	24.4	36.7	28.5	32.4	37.7
Physician Age						
Less than 36 years	28.5	23.4	31.2	28.8	24.7	34.6
36-45 years	30.9	23.9	33.4	30.8	28.8	34.6
46-55 years	30.1	24.2	34.1	28.7	25.4	34.6
56-65 years	31.1	23.7	41.0	30.1	29.4	34.6
66 or more years	26.8	21.3	30.0	28.4	.	38.1

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

[a] All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

[b] Excludes physicians in radiology, psychiatry, anesthesiology and pathology, but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 27 (continued). **Standard Error of the Mean Fee for an Office Visit with an Established Patient (in dollars), 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.29	0.31	0.83	0.52	0.61	0.75
Census Division						
New England	1.19	.	2.58	1.68	.	.
Middle Atlantic	0.76	1.16	1.38	1.73	1.24	1.88
East North Central	0.88	0.37	3.26	0.80	1.13	1.62
West North Central	0.73	0.50	2.46	1.40	.	.
South Atlantic	0.69	0.71	1.41	1.57	1.07	2.20
East South Central	0.81	0.61	2.57	1.35	.	.
West South Central	0.58	0.81	1.99	0.95	1.00	1.33
Mountain	0.78	1.28	1.97	1.67	.	.
Pacific	0.74	0.82	2.14	1.39	2.48	2.20
Type of Practice						
Solo	0.42	0.44	1.28	0.82	0.92	0.91
Non-solo	0.39	0.42	1.06	0.61	0.79	1.17
Location						
Nonmetropolitan	0.41	0.31	2.00	0.86	1.35	.
Metropolitan—						
Less than 1,000,000	0.36	0.39	0.91	0.72	0.75	1.14
1,000,000 and over	0.49	0.65	1.31	0.80	1.00	1.06
Employment Status						
Self-employed	0.31	0.34	0.92	0.56	0.54	0.76
Employee	0.80	0.77	1.82	1.41	2.26	3.25
Physician Age						
Less than 36 years	0.61	0.60	1.39	1.43	0.75	2.22
36-45 years	0.45	0.67	0.90	1.00	1.17	1.21
46-55 years	0.59	0.75	1.87	0.87	0.85	1.64
56-65 years	0.93	0.67	4.08	1.04	1.94	1.60
66 or more years	0.69	0.62	1.65	1.78	.	2.76

Table 28. **Mean Fee for an Office Visit with an Established Patient (in dollars), 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	13.55	15.26	17.21	18.50	23.49	25.11	26.74	28.05	30.10
Specialty									
General/Family Practice	10.63	12.23	13.77	15.25	18.38	19.86	20.76	22.06	23.48
Internal Medicine	15.70	16.76	19.81	20.41	26.75	28.18	30.37	30.43	34.03
Surgery	13.93	15.99	17.60	19.07	23.62	24.58	26.07	28.73	29.66
Pediatrics	12.46	13.75	15.62	16.41	21.57	23.37	24.65	25.13	27.37
Obstetrics/Gynecology	15.39	18.09	19.02	20.72	26.65	29.42	31.49	32.41	34.81
Census Division									
New England	13.55	15.42	17.38	19.52	23.56	26.87	28.53	30.10	33.14
Middle Atlantic	15.89	17.47	18.69	20.34	26.26	28.34	30.46	32.51	34.85
East North Central	12.30	13.59	15.51	16.66	20.34	21.31	23.70	24.90	27.33
West North Central	10.48	11.88	13.43	14.52	18.64	19.10	21.87	21.75	24.06
South Atlantic	13.42	15.48	17.37	18.27	23.72	26.04	25.76	27.11	29.69
East South Central	11.30	12.66	15.23	15.42	20.98	21.16	21.14	23.13	23.55
West South Central	12.29	14.42	16.31	16.60	22.21	24.16	26.43	25.72	28.46
Mountain	11.88	13.46	16.25	16.84	22.89	22.43	24.58	25.39	27.05
Pacific	15.46	17.33	19.59	21.90	27.66	29.30	31.52	33.61	34.93
Type of Practice									
Solo	13.40	15.22	17.26	18.43	22.99	24.68	26.38	27.96	29.54
Non-solo	13.73	15.33	17.15	18.59	24.08	25.55	27.16	28.16	30.67
Location									
Nonmetropolitan	9.91	11.35	13.39	13.41	17.65	18.98	19.39	20.70	22.11
Metropolitan—									
Less than 1,000,000	12.38	14.25	15.60	16.72	21.85	23.64	25.26	25.44	27.50
1,000,000 and over	15.59	17.11	19.59	21.11	26.59	28.37	30.09	32.21	34.73
Physician Age									
Less than 36 years	14.03	15.06	17.44	18.65	23.15	25.84	25.76	27.94	28.53
36-45 years	13.97	15.74	17.19	18.90	23.87	25.27	27.99	28.92	30.89
46-55 years	13.33	15.50	17.59	18.84	24.60	25.53	26.82	27.42	30.13
56-65 years	13.29	14.85	17.43	17.88	22.41	24.09	25.89	28.35	31.13
66 or more years	13.10	14.53	15.81	17.85	21.84	24.27	24.81	26.07	26.85

Source: 1982-86, AMA Socioeconomic Monitoring System Core Surveys. 1976, 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 28 (continued). **Standard Error of the Mean Fee for an Office Visit with an Established Patient (in dollars), 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	0.13	0.11	0.15	0.14	0.24	0.23	0.24	0.26	0.29
Specialty									
General/Family Practice	0.10	0.12	0.12	0.14	0.34	0.31	0.30	0.29	0.31
Internal Medicine	0.48	0.25	0.48	0.24	0.67	0.63	0.67	0.60	0.83
Surgery	0.18	0.24	0.24	0.32	0.40	0.40	0.41	0.57	0.52
Pediatrics	0.28	0.23	0.29	0.20	0.50	0.60	0.53	0.50	0.61
Obstetrics/Gynecology	0.31	0.43	0.41	0.55	0.62	0.72	0.73	0.65	0.75
Census Division									
New England	0.34	0.36	0.47	0.55	0.80	0.82	0.99	1.37	1.19
Middle Atlantic	0.34	0.38	0.33	0.32	0.66	0.71	0.70	0.83	0.76
East North Central	0.18	0.17	0.23	0.23	0.38	0.35	0.47	0.62	0.88
West North Central	0.24	0.30	0.32	0.27	0.60	0.46	0.74	0.60	0.73
South Atlantic	0.22	0.26	0.59	0.26	0.58	0.67	0.47	0.51	0.69
East South Central	0.25	0.33	0.39	0.34	0.94	0.75	0.62	0.79	0.81
West South Central	0.31	0.34	0.38	0.27	0.60	0.53	0.82	0.52	0.58
Mountain	0.28	0.50	0.53	0.41	1.04	0.90	0.95	0.80	0.78
Pacific	0.56	0.26	0.35	0.51	0.78	0.61	0.73	0.69	0.74
Type of Practice									
Solo	0.14	0.15	0.23	0.17	0.31	0.31	0.33	0.37	0.42
Non-solo	0.24	0.17	0.16	0.21	0.37	0.35	0.36	0.37	0.39
Location									
Nonmetropolitan	0.16	0.26	0.75	0.16	0.45	0.46	0.41	0.42	0.41
Metropolitan—									
Less than 1,000,000	0.11	0.14	0.14	0.13	0.33	0.33	0.34	0.29	0.36
1,000,000 and over	0.25	0.18	0.21	0.24	0.39	0.36	0.39	0.45	0.49
Physician Age									
Less than 36 years	0.60	0.41	0.39	0.38	0.63	0.73	0.70	0.59	0.61
36-45 years	0.33	0.23	0.25	0.20	0.42	0.40	0.48	0.46	0.45
46-55 years	0.15	0.20	0.23	0.28	0.57	0.51	0.48	0.49	0.59
56-65 years	0.20	0.23	0.45	0.22	0.46	0.45	0.47	0.69	0.93
66 or more years	0.35	0.31	0.34	0.60	0.61	0.64	0.66	0.80	0.69

Table 29. **Mean Fee for an Office Visit with a New Patient (in dollars), 1986[a]**

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	55.8	34.6	79.2	50.2	40.0	53.0
Census Division						
New England	52.2	.	60.4	49.3	.	.
Middle Atlantic	65.6	38.6	82.8	61.0	39.1	55.2
East North Central	47.3	27.3	69.4	41.2	34.9	44.0
West North Central	43.1	28.5	64.5	40.9	.	.
South Atlantic	55.0	36.6	82.0	47.7	45.2	60.4
East South Central	39.8	25.6	63.4	38.7	.	.
West South Central	51.9	33.2	89.9	46.6	35.8	49.9
Mountain	49.5	32.3	80.7	42.6	.	.
Pacific	73.8	47.7	96.7	70.8	54.0	67.7
Type of Practice						
Solo	54.7	35.4	76.4	52.0	33.7	52.8
Non-solo	56.8	33.6	81.8	48.1	44.1	53.1
Location						
Nonmetropolitan	34.9	28.5	55.8	36.2	29.9	.
Metropolitan—						
Less than 1,000,000	50.4	32.9	71.6	44.5	38.1	50.6
1,000,000 and over	66.3	41.6	87.6	59.4	43.8	58.1
Employment Status						
Self-employed	54.6	34.8	78.0	49.8	35.4	52.5
Employee	62.3	33.3	85.1	54.2	63.2	57.6
Physician Age						
Less than 36 years	53.5	31.8	72.6	46.1	36.2	56.1
36-45 years	58.1	32.8	78.1	51.5	45.0	52.3
46-55 years	55.1	37.6	81.8	48.5	35.1	49.6
56-65 years	57.9	37.3	91.0	53.8	40.1	54.9
66 or more years	46.0	31.6	70.4	46.6	.	59.9

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology, but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 29 (continued). **Standard Error of the Mean Fee for an Office Visit with a New Patient (in dollars), 1986[a]**

	All Physicians[b]	Specialty: General & Family Practice	Specialty: Internal Medicine	Specialty: Surgery	Specialty: Pediatrics	Specialty: Obstetrics/ Gynecology
All Physicians	0.81	0.99	2.12	1.09	2.15	1.20
Census Division						
New England	2.47	.	4.87	2.91	.	.
Middle Atlantic	2.25	3.14	5.15	2.97	3.84	2.39
East North Central	1.61	0.75	4.81	1.56	3.52	2.02
West North Central	2.26	1.85	6.75	2.52	.	.
South Atlantic	2.00	3.62	4.65	2.15	11.10	4.05
East South Central	1.88	1.21	6.67	2.45	.	.
West South Central	2.23	2.08	10.24	1.88	3.66	2.37
Mountain	2.59	2.07	8.24	2.74	.	.
Pacific	2.66	2.81	5.41	4.74	5.22	3.80
Type of Practice						
Solo	1.16	1.53	3.02	1.70	1.30	1.75
Non-solo	1.14	1.12	2.97	1.27	3.31	1.65
Location						
Nonmetropolitan	1.38	2.05	5.04	1.78	1.89	.
Metropolitan—						
Less than 1,000,000	0.97	1.22	2.38	1.19	4.03	1.49
1,000,000 and over	1.42	1.84	3.36	1.97	2.69	1.86
Employment Status						
Self-employed	0.85	1.13	2.32	1.15	1.08	1.25
Employee	2.47	1.55	5.19	3.29	10.79	4.32
Physician Age						
Less than 36 years	2.30	1.27	5.86	2.92	3.79	2.93
36-45 years	1.22	1.70	2.55	1.62	4.66	2.11
46-55 years	1.69	2.41	5.17	2.39	2.19	1.89
56-65 years	2.52	3.05	8.07	2.56	4.67	3.24
66 or more years	1.57	1.36	4.36	2.97	.	4.45

Table 30. **Mean Fee for an Office Visit with a New Patient (in dollars), 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	22.86	25.38	28.31	30.89	43.43	48.08	48.43	51.87	55.75
Specialty									
General/Family Practice	14.82	16.74	18.37	20.58	26.81	30.22	29.98	31.72	34.61
Internal Medicine	31.34	33.09	37.89	40.05	62.78	69.54	68.95	74.00	79.19
Surgery	23.25	26.61	28.93	31.96	42.32	42.67	44.49	48.28	50.20
Pediatrics	17.32	19.20	20.99	22.00	30.32	35.62	35.37	34.55	40.00
Obstetrics/Gynecology	27.29	29.56	30.69	34.01	44.60	47.87	46.85	51.62	52.98
Census Division									
New England	20.59	23.48	26.86	31.06	38.74	49.50	48.00	49.91	52.24
Middle Atlantic	25.72	28.68	30.83	33.20	48.57	53.96	54.26	58.65	65.62
East North Central	20.41	23.24	25.54	26.95	36.51	41.08	43.28	42.68	47.35
West North Central	19.18	19.36	21.37	23.41	34.04	37.16	36.10	43.28	43.07
South Atlantic	23.74	25.79	28.54	30.94	44.63	47.19	46.78	49.13	54.96
East South Central	19.81	21.69	25.35	25.23	40.07	37.75	34.75	41.37	39.79
West South Central	21.77	25.14	27.31	27.90	41.38	42.23	46.06	49.96	51.86
Mountain	21.38	21.46	25.18	29.10	39.08	42.56	44.53	44.69	49.52
Pacific	25.81	29.13	33.16	38.42	53.85	63.25	63.15	68.86	73.80
Type of Practice									
Solo	21.81	24.93	28.19	29.91	42.01	45.55	46.53	50.73	54.71
Non-solo	24.15	26.07	28.46	32.07	45.14	50.68	50.62	53.13	56.81
Location									
Nonmetropolitan	15.98	17.12	19.17	19.29	28.85	31.07	32.23	32.28	34.95
Metropolitan—									
Less than 1,000,000	21.62	23.90	25.98	27.90	41.00	44.54	45.01	47.93	50.43
1,000,000 and over	25.83	28.71	32.63	35.91	49.46	56.36	55.95	60.36	66.34
Physician Age									
Less than 36 years	25.03	27.47	29.45	32.19	44.09	51.14	47.02	52.30	53.50
36-45 years	23.89	27.93	29.82	32.56	45.85	48.87	51.75	54.02	58.14
46-55 years	22.28	24.36	28.71	31.47	43.72	49.04	48.43	52.27	55.06
56-65 years	22.20	23.68	27.23	28.69	39.80	44.19	45.01	49.41	57.93
66 or more years	20.94	22.51	24.65	28.52	40.00	45.37	44.23	46.97	45.96

Source: 1982-86, AMA Socioeconomic Monitoring System Core Surveys; 1976, 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 30 (continued). **Standard Error of the Mean Fee for an Office Visit with a New Patient, (in dollars), 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	0.26	0.29	0.32	0.33	0.62	0.71	0.64	0.72	0.81
Specialty									
General/Family Practice	0.27	0.29	0.28	0.26	0.66	0.75	0.69	0.72	0.99
Internal Medicine	0.84	0.90	0.98	0.95	1.84	2.11	1.89	2.22	2.12
Surgery	0.39	0.48	0.52	0.56	0.88	0.93	0.90	1.01	1.09
Pediatrics	0.57	0.60	0.60	0.48	1.18	1.68	1.23	1.17	2.15
Obstetrics/Gynecology	0.59	0.66	0.58	0.74	1.62	1.76	0.99	1.11	1.20
Census Division									
New England	0.75	0.81	1.19	1.30	2.31	2.64	2.35	2.52	2.47
Middle Atlantic	0.69	0.85	0.80	0.80	1.63	1.88	1.88	1.88	2.25
East North Central	0.52	0.57	0.72	0.58	1.12	1.48	1.33	1.37	1.61
West North Central	1.02	0.91	0.87	0.90	1.84	1.90	1.77	2.53	2.26
South Atlantic	0.69	0.73	0.90	0.71	1.58	1.66	1.43	1.44	2.00
East South Central	1.02	1.09	1.09	0.94	2.11	1.72	1.52	2.48	1.88
West South Central	0.87	1.10	1.03	1.29	2.23	1.37	1.83	2.60	2.23
Mountain	1.11	0.91	1.00	1.51	2.07	3.10	2.31	2.20	2.59
Pacific	0.64	0.72	0.88	0.94	1.87	2.43	1.99	2.17	2.66
Type of Practice									
Solo	0.34	0.36	0.46	0.41	0.83	0.96	0.85	0.97	1.16
Non-solo	0.40	0.48	0.45	0.52	0.95	1.04	0.98	1.07	1.14
Location									
Nonmetropolitan	0.62	0.60	0.84	0.42	1.04	1.09	1.05	0.96	1.38
Metropolitan—									
Less than 1,000,000	0.36	0.39	0.40	0.40	0.82	0.89	0.83	0.98	0.97
1,000,000 and over	0.42	0.47	0.53	0.54	1.07	1.27	1.11	1.19	1.42
Physician Age									
Less than 36 years	1.24	1.25	1.01	1.19	1.95	2.21	1.90	1.85	2.30
36-45 years	0.49	0.66	0.62	0.60	1.06	1.12	1.20	1.20	1.22
46-55 years	0.43	0.44	0.60	0.71	1.24	1.46	1.29	1.51	1.69
56-65 years	0.51	0.58	0.72	0.55	1.23	1.34	1.27	1.73	2.52
66 or more years	0.82	0.61	0.83	0.83	2.28	3.14	1.96	2.20	1.57

Table 31. **Mean Fee for a Follow-up Hospital Visit (in dollars), 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/Gynecology
All Physicians	33.13	27.04	35.19	33.42	33.32	34.82
Census Division						
New England	30.72		32.01	30.24	.	.
Middle Atlantic	38.20	28.36	37.99	40.54	37.01	40.06
East North Central	30.80	23.92	31.62	34.21	32.62	29.05
West North Central	26.54	22.25	30.66	26.72	.	.
South Atlantic	34.26	27.83	36.64	35.56	31.12	38.94
East South Central	26.33	21.81	29.24	26.11	.	.
West South Central	31.21	27.82	35.72	30.26	31.83	29.42
Mountain	30.30	26.73	30.87	27.89	.	.
Pacific	38.38	35.43	39.97	36.39	41.12	40.92
Type of Practice						
Solo	33.73	27.97	35.43	34.44	32.33	39.05
Non-solo	32.55	25.92	34.97	32.30	34.03	31.25
Location						
Nonmetropolitan	25.18	22.02	28.70	27.48	25.51	.
Metropolitan—						
Less than 1,000,000	29.68	25.71	30.94	29.29	30.69	32.37
1,000,000 and over	38.65	33.39	39.28	39.57	37.17	38.56
Employment Status						
Self-employed	32.98	27.01	34.92	33.44	32.73	34.95
Employee	34.11	27.20	36.63	33.19	36.36	.
Physician Age						
Less than 36 years	33.46	27.48	34.17	40.77	30.95	37.21
36-45 years	33.55	27.09	34.77	34.53	34.42	32.47
46-55 years	33.23	29.52	36.55	31.18	30.84	32.69
56-65 years	33.57	26.10	37.18	35.36	34.45	40.44
66 or more years	29.03	24.13	30.30	28.51	.	.

Source: 1986 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Excludes physicians in radiology, psychiatry, anesthesiology and pathology, but otherwise includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 31 (continued). **Standard Error of the Mean Fee for an Office Visit with a New Patient (in dollars), 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	0.36	0.50	0.57	0.80	1.07	1.40
Census Division						
New England	0.96	.	1.65	1.88	.	.
Middle Atlantic	1.12	1.49	1.35	2.68	3.28	3.02
East North Central	0.93	1.03	1.35	2.64	2.86	1.87
West North Central	1.06	0.91	3.09	2.14	.	.
South Atlantic	0.96	1.38	1.38	1.99	2.75	7.03
East South Central	1.19	1.44	2.94	2.20	.	.
West South Central	0.70	1.11	1.51	1.24	1.97	2.72
Mountain	1.12	1.48	1.52	3.01	.	.
Pacific	0.76	1.66	1.37	1.55	2.11	3.68
Type of Practice						
Solo	0.50	0.72	0.80	1.05	1.69	2.43
Non-solo	0.51	0.68	0.82	1.23	1.39	1.38
Location						
Nonmetropolitan	0.68	0.61	2.29	1.85	2.16	.
Metropolitan—						
Less than 1,000,000	0.46	0.64	0.73	0.96	1.83	1.72
1,000,000 and over	0.58	1.03	0.78	1.38	1.43	2.41
Employment Status						
Self-employed	0.38	0.53	0.59	0.84	1.18	1.49
Employee	0.99	1.52	1.80	2.95	2.57	.
Physician Age						
Less than 36 years	1.05	1.11	1.36	5.77	2.29	3.10
36-45 years	0.59	0.92	0.92	1.34	1.93	1.60
46-55 years	0.66	1.25	1.33	0.95	1.74	2.67
56-65 years	0.96	1.20	1.35	2.05	2.84	5.97
66 or more years	1.03	0.96	1.78	2.67	.	.

Table 32. **Mean Fee for a Follow-up Hospital Visit (in dollars), 1976, 1978-80, 1982-86**[a]

	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	20.06	22.53	24.17	26.95	24.04	29.04	30.08	31.59	33.13
Specialty									
General/Family Practice	16.14	18.05	19.16	22.20	21.76	24.62	24.80	26.80	27.04
Internal Medicine	21.00	23.76	25.12	27.99	28.39	31.65	33.61	34.06	35.19
Surgery	21.36	24.17	25.23	29.30	21.96	28.29	29.26	30.69	33.42
Pediatrics	18.52	20.78	22.96	23.05	25.69	27.71	29.55	30.69	33.32
Obstetrics/Gynecology	23.42	24.99	27.14	27.82	21.43	31.59	30.81	33.56	34.82
Census Division									
New England	21.04	19.37	22.60	25.51	21.63	26.88	31.02	30.01	30.72
Middle Atlantic	23.05	25.66	27.52	30.25	27.11	31.84	36.78	37.96	38.20
East North Central	18.30	20.92	20.97	23.90	21.58	26.73	27.35	28.87	30.80
West North Central	15.52	17.56	18.53	21.00	18.85	22.07	23.57	24.03	26.54
South Atlantic	20.32	23.74	25.79	27.40	23.46	29.18	29.59	30.65	34.26
East South Central	15.27	18.90	19.92	21.07	19.47	21.81	22.53	24.60	26.33
West South Central	18.91	20.28	24.28	24.49	23.95	29.54	28.45	30.85	31.21
Mountain	18.41	19.03	22.44	23.84	25.82	25.11	27.19	29.70	30.30
Pacific	22.89	26.35	26.67	32.61	29.31	36.17	34.68	36.52	38.38
Type of Practice									
Solo	20.29	22.94	24.37	27.17	24.50	29.86	30.67	32.31	33.73
Non-solo	19.80	21.93	23.93	26.69	23.54	28.23	29.46	30.84	32.55
Location									
Nonmetropolitan	15.05	17.11	17.78	19.56	19.96	22.17	23.19	24.57	25.18
Metropolitan—									
Less than 1,000,000	18.76	20.75	22.10	24.13	22.33	26.53	27.28	27.88	29.68
1,000,000 and over	22.62	25.49	27.70	31.00	27.00	33.65	34.64	36.63	38.65
Physician Age									
Less than 36 years	19.86	22.06	25.05	27.72	24.92	29.24	29.28	30.74	33.46
36-45 years	20.56	24.33	24.85	26.92	24.14	29.03	30.41	33.21	33.55
46-55 years	20.35	21.94	24.65	26.99	25.17	29.54	30.27	30.68	33.23
56-65 years	19.10	21.32	22.94	27.78	22.11	28.96	30.43	30.56	33.57
66 or more years	19.92	22.02	22.44	24.61	22.96	26.93	28.00	30.70	29.03

Source: 1982-86, AMA Socioeconomic Monitoring System Core Surveys. 1976, 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

[a] Data, other than in the specialty breakdown, are based on responses from physicians in all specialties except radiology, psychiatry, anesthesiology and pathology. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 32 (continued). **Standard Error of the Mean Fee for a Follow-up Hospital Visit (in dollars), 1976, 1978-80, 1982-86**[a]

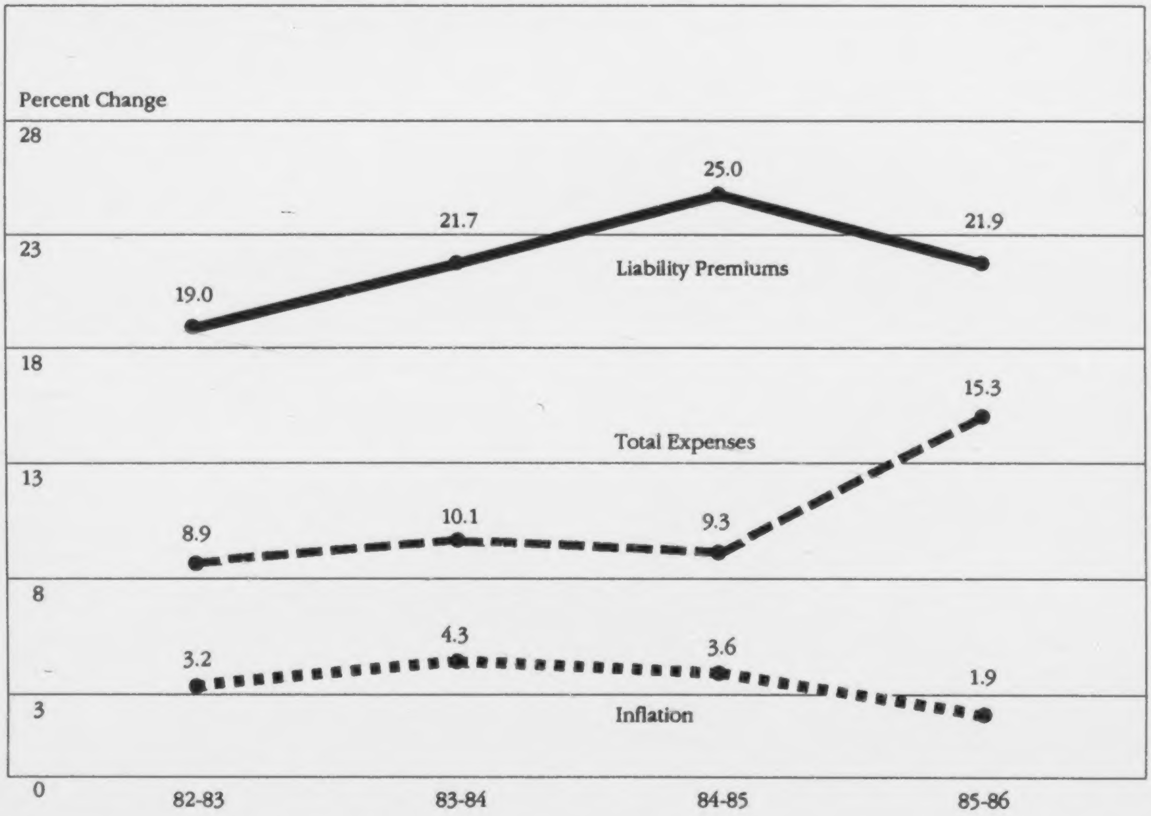
	1976	1978	1979	1980	1982	1983	1984	1985	1986
All Physicians	0.27	0.27	0.28	0.44	0.32	0.39	0.35	0.36	0.36
Specialty									
General/Family Practice	0.34	0.38	0.37	0.96	0.48	0.63	0.48	0.49	0.50
Internal Medicine	0.60	0.62	0.60	0.62	0.78	0.86	0.80	0.73	0.57
Surgery	0.61	0.55	0.56	1.05	0.55	0.70	0.62	0.67	0.80
Pediatrics	0.68	0.76	0.81	0.82	0.88	1.17	1.00	1.08	1.07
Obstetrics/Gynecology	0.90	0.88	0.92	0.92	1.03	1.76	1.17	1.41	1.40
Census Division									
New England	2.02	0.82	0.93	1.21	1.08	1.11	1.51	1.24	0.96
Middle Atlantic	0.67	0.76	0.74	1.67	1.02	1.04	1.17	1.02	1.12
East North Central	0.53	0.55	0.58	0.57	0.57	0.97	0.82	1.02	0.93
West North Central	0.64	0.74	0.76	0.85	0.88	1.06	0.87	0.91	1.06
South Atlantic	0.59	0.72	0.80	0.78	0.78	0.90	0.75	0.75	0.96
East South Central	0.67	0.90	0.97	0.83	0.78	0.76	0.76	1.12	1.19
West South Central	0.69	0.69	0.87	0.80	0.86	1.14	0.79	0.84	0.70
Mountain	1.08	0.79	0.88	1.06	1.44	1.43	1.11	1.60	1.12
Pacific	0.77	0.73	0.73	1.44	0.93	1.25	0.95	0.92	0.76
Type of Practice									
Solo	0.39	0.36	0.40	0.63	0.46	0.62	0.50	0.51	0.50
Non-solo	0.37	0.39	0.38	0.61	0.42	0.49	0.48	0.51	0.51
Location									
Nonmetropolitan	0.56	0.60	0.52	0.57	0.69	0.63	0.56	0.68	0.68
Metropolitan—									
Less than 1,000,000	0.42	0.35	0.38	0.38	0.42	0.53	0.47	0.42	0.46
1,000,000 and over	0.41	0.44	0.46	0.83	0.54	0.68	0.58	0.62	0.58
Physician Age									
Less than 36 years	0.95	0.92	0.95	1.10	0.88	1.06	0.91	0.82	1.05
36-45 years	0.52	0.61	0.57	0.55	0.55	0.65	0.61	0.71	0.59
46-55 years	0.44	0.44	0.51	0.58	0.64	0.81	0.66	0.64	0.66
56-65 years	0.44	0.50	0.52	1.54	0.68	1.00	0.78	0.80	0.96
66 or more years	1.34	0.69	0.78	0.69	1.03	1.05	1.33	1.10	1.03

Professional Expenses of Physicians

Professional expense information reported from the Socioeconomic Monitoring System refers to tax-deductible professional expenses from medical practice, not including contributions made for physicians into deferred compensation plans. Nonsolo practitioners are asked to report only their share of their practices' total expenses. The major components of total expenses are defined as follows: (1) office expenses, including rent or mortgage for office space, telephones and utilities; (2) total nonphysician payroll expenses including fringe benefits; (3) medical materials and supplies, such as drugs, x-ray films and outside expenses for lab work and other services; (4) depreciation, lease and rent for medical equipment; and (5) professional medical liability insurance premiums. Other expenses are not separately itemized in the surveys.

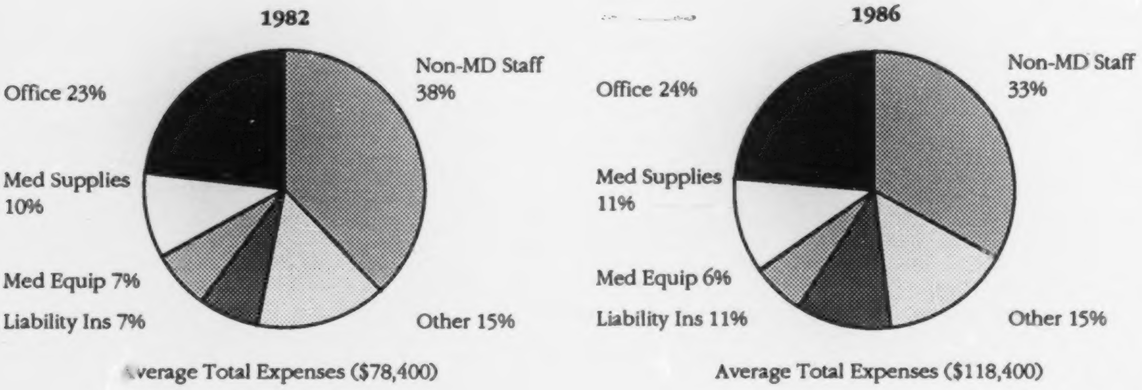
Figure 13 shows that total professional expenses have increased at a somewhat higher rate than inflation in every year since 1983. Since professional liability insurance premiums have increased at an even higher rate, their share of total professional expenses has grown from 7% in 1981 to 11% in 1986 (see Figure 14). Geographic patterns in average total professional expenses are indicated in Figure 15.

Figure 13. **Percent Change in Average Total Professional Expenses and Professional Liability Insurance Premiums of Self-Employed Physicians, 1982-1986**



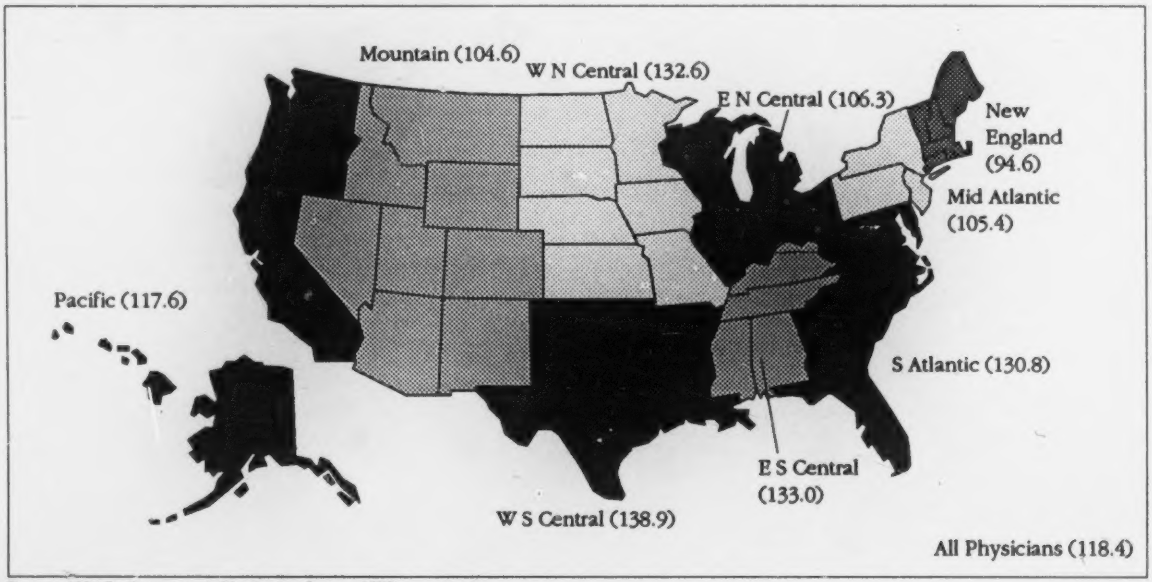
Source: AMA Socioeconomic Monitoring System 1983-1987 core surveys.

Figure 14. **Distribution of Average Professional Expenses of Self-Employed Physicians, 1982 and 1986[a]**



Source: AMA Socioeconomic Monitoring System 1983 and 1987 core surveys.

Figure 15. **Average Professional Expenses of Self-Employed Physicians (in thousands of dollars) by Census Division, 1986**


Mountain (104.6)
W N Central (132.6)
E N Central (106.3)
New England (94.6)
Mid Atlantic (105.4)
Pacific (117.6)
S Atlantic (130.8)
E S Central (133.0)
W S Central (138.9)
All Physicians (118.4)

Source: AMA Socioeconomic Monitoring System 1987 core survey.

a. Excludes physicians in psychiatry, radiology, anesthesiology and pathology.

Table 33. **Mean Professional Expenses of Self-Employed Physicians (in thousands of dollars), 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	118.4	119.9	110.5	148.6	93.2	149.5
Census Division						
New England	94.6	.	72.3	133.9	.	.
Middle Atlantic	105.4	87.9	99.4	148.9	103.1	121.2
East North Central	106.3	97.5	130.3	143.4	111.1	.
West North Central	132.6	138.2	.	120.9	.	.
South Atlantic	130.8	123.4	119.0	159.6	.	180.1
East South Central	133.0	158.9	.	134.7	.	.
West South Central	138.9	153.6	125.4	181.9	.	.
Mountain	104.6	116.3	.	141.1	.	.
Pacific	117.6	102.0	106.1	141.4	86.6	.
Type of Practice						
Solo	100.7	106.2	89.5	131.3	89.8	131.0
Non-solo	144.4	147.4	140.0	179.0	96.6	174.6
Location						
Nonmetropolitan	119.7	128.9	109.6	125.0	.	.
Metropolitan—						
Less than 1,000,000	123.3	117.8	119.4	154.1	100.4	160.4
1,000,000 and over	112.9	114.4	103.2	149.0	88.5	138.3
Physician Age						
Less than 36 years	90.9	111.7	76.2	130.5	.	.
36-45 years	123.7	145.8	109.8	157.3	99.9	166.8
46-55 years	127.9	116.8	133.1	161.8	96.3	143.6
56-65 years	119.8	122.0	122.0	139.0	68.7	124.1
66 or more years	93.4	70.3	90.2	94.2	.	.

Source: 1987 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 33 (continued). **Standard Error of Mean Professional Expenses of Self-Employed Physicians (in thousands of dollars), 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	2.60	7.01	4.96	5.16	6.29	8.08
Census Division						
New England	9.30	.	8.22	21.21	.	.
Middle Atlantic	5.73	9.10	9.62	16.38	19.13	11.02
East North Central	6.13	18.32	15.57	12.41	22.76	.
West North Central	11.20	32.49	.	11.78	.	.
South Atlantic	6.50	16.82	11.57	12.85	.	25.29
East South Central	9.69	28.82	.	15.72	.	.
West South Central	9.76	21.70	24.85	17.77	.	.
Mountain	8.44	13.01	.	24.87	.	.
Pacific	6.53	9.16	11.00	10.04	11.31	.
Type of Practice						
Solo	2.57	6.92	4.22	5.61	8.83	7.65
Non-solo	4.99	15.56	9.90	9.95	9.00	15.61
Location						
Nonmetropolitan	6.21	12.82	13.53	10.05	.	.
Metropolitan—						
Less than 1,000,000	4.01	11.72	9.21	7.81	10.00	14.59
1,000,000 and over	3.99	11.61	5.72	8.21	9.95	9.08
Physician Age						
Less than 36 years	4.74	8.52	7.07	15.18	.	.
36-45 years	4.62	19.12	7.34	9.65	14.18	12.20
46-55 years	5.72	15.12	19.91	9.54	8.20	12.57
56-65 years	5.44	11.30	9.59	11.11	7.39	9.43
66 or more years	8.04	13.46	7.83	10.58	.	.

Table 34. **Mean Professional Expenses of Self-Employed Physicians (in thousands of dollars), 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	44.6	45.0	51.3	72.7	78.4	85.4	94.0	102.7	118.4
Specialty									
General/Family Practice	44.7	46.1	53.0	70.9	75.3	79.4	89.2	96.5	119.9
Internal Medicine	43.8	43.9	50.6	72.5	74.9	88.5	89.7	90.0	110.5
Surgery	58.2	61.2	67.4	89.2	103.7	112.3	128.9	135.7	148.6
Pediatrics	36.7	33.9	49.3	61.2	67.7	64.1	77.8	87.3	93.2
Obstetrics/Gynecology	61.5	61.4	66.9	98.9	108.3	108.5	121.6	131.9	149.5
Census Division									
New England	37.2	30.5	36.3	53.0	72.7	72.1	64.4	85.8	94.6
Middle Atlantic	33.6	38.9	41.2	64.7	59.8	71.6	83.6	82.6	105.4
East North Central	40.7	44.7	51.6	70.4	73.3	84.1	85.2	93.7	106.3
West North Central	44.4	44.2	51.1	78.2	87.1	86.0	100.2	102.7	132.6
South Atlantic	48.5	44.6	53.6	74.9	81.6	91.1	101.2	109.0	130.8
East South Central	47.2	51.4	63.3	91.0	82.6	88.8	102.4	106.6	133.0
West South Central	55.1	50.0	58.6	83.7	99.2	105.4	118.8	124.7	138.9
Mountain	50.3	46.1	52.4	63.0	77.2	71.5	85.3	112.2	104.6
Pacific	51.2	51.8	57.3	77.6	77.6	89.1	98.2	109.5	117.6
Type of Practice									
Solo	42.9	46.8	49.3	70.4	72.4	77.2	85.4	90.5	100.7
Non-solo	47.3	42.8	53.8	77.7	86.3	98.8	108.0	120.8	144.4
Location									
Nonmetropolitan	47.3	49.8	58.8	66.2	79.6	85.5	85.0	91.4	119.7
Metropolitan—									
Less than1,000,000	47.3	47.9	51.7	79.3	77.9	91.5	98.0	106.2	123.3
1,000,000 and over	41.9	41.6	49.7	68.5	78.5	79.4	92.5	102.3	112.9
Physician Age									
Less than 36 years	27.7	30.2	37.0	52.6	57.2	67.2	90.4	80.4	90.9
36-45 years	48.0	48.3	54.6	79.0	76.7	89.5	96.8	101.7	123.7
46-55 years	52.8	54.1	61.1	86.9	96.0	99.2	105.0	114.1	127.9
56-65 years	45.4	45.3	51.7	66.9	79.6	80.4	86.0	107.0	119.8
66 or more years	30.7	29.3	36.9	69.0	58.2	61.5	69.1	89.4	93.4

Source: 1982-87, AMA Socioeconomic Monitoring System Core Surveys. 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the Gray Book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 34 (continued). **Standard Error of the Mean Professional Expenses of Self-Employed Physicians (in thousands of dollars), 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	0.84	0.85	0.99	2.32	1.78	1.68	2.14	2.48	2.60
Specialty									
General/Family Practice	1.44	1.60	1.96	4.10	2.80	3.24	4.04	4.83	7.01
Internal Medicine	1.63	1.62	2.14	5.47	3.80	4.88	5.19	4.35	4.96
Surgery	2.15	2.37	2.27	5.14	4.98	3.72	6.17	5.80	5.16
Pediatrics	2.28	2.13	3.23	9.13	4.85	3.00	3.91	5.43	6.29
Obstetrics/Gynecology	3.41	3.24	4.44	11.87	6.00	4.94	6.08	6.45	8.08
Census Division									
New England	2.44	2.05	2.55	6.42	7.60	5.53	5.56	13.62	9.30
Middle Atlantic	1.20	1.71	2.06	4.61	4.01	3.88	6.01	4.86	5.73
East North Central	1.46	2.30	2.37	5.66	3.64	4.39	3.67	5.24	6.13
West North Central	2.84	3.09	2.80	5.89	7.90	6.09	7.75	12.14	11.20
South Atlantic	2.15	1.92	2.44	6.99	4.72	4.19	5.86	6.71	6.50
East South Central	3.06	4.49	5.88	16.37	7.08	5.06	7.11	7.78	9.69
West South Central	4.05	3.13	3.46	6.46	5.51	6.75	6.73	9.12	9.76
Mountain	6.37	2.81	3.55	6.73	5.70	5.14	7.68	9.62	8.44
Pacific	2.25	2.37	2.79	5.24	4.63	4.14	5.61	5.36	6.53
Type of Practice									
Solo	0.94	1.10	1.02	2.72	1.93	1.95	2.35	2.55	2.57
Non-solo	1.58	1.34	1.81	4.34	3.21	3.00	4.01	4.71	4.99
Location									
Nonmetropolitan	2.19	2.41	3.88	4.47	4.64	4.83	3.74	4.69	6.21
Metropolitan—									
Less than 1,000,000	1.50	1.35	1.44	4.29	2.50	2.53	3.48	3.86	4.01
1,000,000 and over	1.08	1.22	1.43	2.96	2.94	2.54	3.20	3.88	3.99
Physician Age									
Less than 36 years	2.10	2.15	2.00	3.63	3.32	3.82	7.87	4.85	4.74
36-45 years	1.67	1.77	2.16	4.35	3.11	3.22	3.24	4.02	4.62
46-55 years	1.82	1.85	2.18	5.84	4.25	3.51	5.32	5.20	5.72
56-65 years	1.58	1.55	1.81	3.90	3.72	3.34	3.63	5.87	5.44
66 or more years	1.51	1.52	1.96	8.69	3.39	4.19	4.11	10.00	8.04

Table 35. **Median Professional Expenses of Self-Employed Physicians (in thousands of dollars), 1986**[a]

		Specialty				
	All Physicians[b]	General & Family Practice	Internal Medicine	Surgery	Pediatrics	Obstetrics/ Gynecology
All Physicians	89.0	92.0	91.0	116.0	76.0	124.0
Census Division						
New England	66.0	.	59.0	100.0	.	.
Middle Atlantic	81.0	89.0	81.0	103.0	76.0	108.0
East North Central	75.0	73.0	96.0	110.0	68.0	.
West North Central	102.0	98.0	.	120.0	.	.
South Atlantic	100.0	100.0	98.0	130.0	.	145.0
East South Central	104.0	104.0	.	109.0	.	.
West South Central	97.0	93.0	97.0	140.0	.	.
Mountain	82.0	99.0	.	101.0	.	.
Pacific	92.0	95.0	100.0	118.0	72.0	.
Type of Practice						
Solo	80.0	90.0	77.0	104.0	76.0	110.0
Non-solo	106.0	104.0	110.0	154.0	77.0	135.0
Location						
Nonmetropolitan	95.0	95.0	82.0	110.0	.	.
Metropolitan—						
Less than 1,000,000	93.0	92.0	95.0	125.0	78.0	125.0
1,000,000 and over	82.0	88.0	91.0	114.0	72.0	124.0
Physician Age						
Less than 36 years	79.0	100.0	61.0	101.0	.	.
36-45 years	93.0	103.0	91.0	130.0	70.0	140.0
46-55 years	96.0	96.0	104.0	128.0	85.0	139.0
56-65 years	89.0	95.0	109.0	104.0	72.0	112.0
66 or more years	67.0	56.0	89.0	75.0	.	.

Source: 1987 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. All data are weighted to adjust for nonresponse bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Includes Physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 36. **Median Professional Expenses of Self-Employed Physicians (in thousands of dollars), 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	35.0	35.0	40.0	50.0	61.0	67.0	75.0	78.0	89.0
Specialty									
General/Family Practice	39.0	38.0	41.0	56.0	63.0	68.0	75.0	81.0	92.0
Internal Medicine	36.0	39.0	40.0	60.0	66.0	67.0	73.0	74.0	91.0
Surgery	45.0	46.0	50.0	68.0	74.0	97.0	104.0	105.0	116.0
Pediatrics	35.0	30.0	40.0	45.0	55.0	61.0	69.0	73.0	76.0
Obstetrics/Gynecology	50.0	50.0	60.0	72.0	96.0	99.0	106.0	116.0	124.0
Census Division									
New England	34.0	25.0	30.0	40.0	52.0	55.0	50.0	57.0	66.0
Middle Atlantic	30.0	30.0	30.0	50.0	49.0	53.0	68.0	61.0	81.0
East North Central	33.0	35.0	40.0	50.0	60.0	64.0	72.0	71.0	75.0
West North Central	35.0	34.0	45.0	80.0	65.0	68.0	80.0	82.0	102.0
South Atlantic	40.0	35.0	40.0	50.0	60.0	71.0	77.0	79.0	100.0
East South Central	45.0	40.0	42.0	60.0	68.0	82.0	88.0	85.0	104.0
West South Central	40.0	40.0	45.0	63.0	80.0	78.0	94.0	91.0	97.0
Mountain	40.0	40.0	43.0	50.0	63.0	62.0	66.0	84.0	82.0
Pacific	40.0	40.0	40.0	60.0	63.0	71.0	74.0	90.0	92.0
Type of Practice									
Solo	35.0	37.0	40.0	50.0	60.0	60.0	69.0	71.0	80.0
Non-solo	39.0	30.0	39.0	60.0	64.0	80.0	84.0	90.0	106.0
Location									
Nonmetropolitan	40.0	40.0	42.0	55.0	64.0	70.0	77.0	80.0	95.0
Metropolitan—									
Less than 1,000,000	38.0	39.0	40.0	56.0	63.0	72.0	77.0	80.0	93.0
1,000,000 and over	32.0	30.0	36.0	50.0	59.0	60.0	69.0	73.0	82.0
Physician Age									
Less than 36 years	18.0	22.0	30.0	40.0	49.0	58.0	70.0	65.0	79.0
36-45 years	38.0	40.0	40.0	55.0	63.0	71.0	78.0	79.0	93.0
46-55 years	40.0	40.0	45.0	62.0	70.0	83.0	84.0	91.0	96.0
56-65 years	36.0	38.0	40.0	50.0	62.0	60.0	71.0	79.0	89.0
66 or more years	24.0	21.0	29.0	45.0	50.0	46.0	55.0	57.0	67.0

Source: 1982-87, AMA Socioeconomic Monitoring System Core Surveys. 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active nonfederal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for nonresponse bias. This will cause figures to differ from those reported in previous editions of the gray book. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 37. **Mean Non-Physician Payroll per Self-Employed Physician (in thousands of dollars), 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	30.1	29.0	31.2	35.6	38.8
Specialty					
General/Family Practice	30.4	29.9	31.2	37.3	42.5
Internal Medicine	29.4	31.2	32.3	30.8	35.3
Surgery	38.3	37.9	42.0	43.0	48.1
Pediatrics	25.1	25.3	29.5	33.1	35.3
Obstetrics/Gynecology	45.8	33.3	36.8	42.8	45.7
Census Division					
New England	30.5	24.3	21.3	25.3	28.7
Middle Atlantic	19.8	23.3	26.6	26.4	34.2
East North Central	28.2	28.2	28.6	31.1	33.3
West North Central	37.6	30.2	37.6	37.7	49.3
South Atlantic	31.7	31.8	34.8	41.4	40.5
East South Central	35.4	33.6	38.6	50.3	49.6
West South Central	38.3	38.7	36.4	46.0	50.2
Mountain	28.0	23.7	25.2	33.3	28.3
Pacific	28.2	27.5	32.3	34.5	39.1
Type of Practice					
Solo	26.0	24.2	25.9	29.2	31.8
Non-solo	35.7	36.7	40.1	45.6	50.0
location					
Nonmetropolitan	34.7	31.3	29.7	33.7	43.0
Metropolitan—					
less than 1,000,000	29.9	32.6	33.1	37.8	41.6
1,000,000 and over	28.9	25.0	29.8	33.8	34.8
Physician Age					
Less than 36 years	19.3	23.7	29.8	24.5	30.5
36-45 years	30.6	29.5	31.2	35.0	40.0
46-55 years	34.9	33.4	35.6	40.6	42.1
56-65 years	31.3	28.2	29.1	37.9	41.0
66 or more years	27.0	22.3	22.9	31.2	26.3

Source: 1983-87, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active non-federal patient care physicians excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 37 (continued). **Standard Error of the Mean Non-Physician Personnel Payroll per Self-Employed Physician (in thousands of dollars), 1982-86[a]**

	1982	1983	1984	1985	1986
All Physicians	0.84	0.70	0.85	1.20	1.18
Specialty					
General/Family Practice	1.44	1.47	1.46	2.13	2.64
Internal Medicine	1.81	2.06	2.27	1.99	1.86
Surgery	2.35	1.55	2.53	2.19	2.32
Pediatrics	2.15	1.59	1.68	2.33	3.16
Obstetrics/Gynecology	3.44	1.88	2.17	3.36	6.30
Census Division					
New England	4.16	2.69	2.37	3.46	2.93
Middle Atlantic	1.37	1.74	2.55	1.98	3.82
East North Central	1.62	1.76	1.54	2.04	2.61
West North Central	3.74	2.69	3.94	4.45	4.80
South Atlantic	2.21	1.78	2.26	3.56	2.40
East South Central	3.47	2.45	3.17	5.21	4.29
West South Central	2.55	2.67	2.26	5.97	4.46
Mountain	3.01	2.28	2.16	3.05	2.67
Pacific	2.34	1.53	2.21	2.10	2.94
Type of Practice					
Solo	0.84	0.73	0.82	0.92	1.07
Non-solo	1.60	1.35	1.76	2.63	2.47
Location					
Nonmetropolitan	2.71	2.14	1.42	1.96	2.91
Metropolitan—					
Less than 1,000,000	1.01	1.11	1.36	1.74	1.92
1,000,000 and over	1.47	0.97	1.32	2.01	1.69
Physician Age					
Less than 36 years	1.31	1.78	3.04	1.47	2.46
36-45 years	1.68	1.29	1.38	1.90	2.07
46-55 years	1.88	1.40	2.11	2.83	2.98
56-65 years	1.55	1.49	1.36	3.09	2.22
66 or more years	2.31	2.24	1.59	2.90	2.15

Table 38. **Mean Office Expenses per Self-Employed Physician (in thousands of dollars), 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	17.8	21.2	24.4	26.4	28.5
Specialty					
General/Family Practice	18.2	20.5	23.1	25.0	29.2
Internal Medicine	18.6	24.2	22.6	25.9	28.0
Surgery	22.2	26.2	33.0	32.1	38.0
Pediatrics	17.5	20.8	23.7	23.1	20.8
Obstetrics/Gynecology	24.9	25.3	31.1	36.6	37.8
Census Division					
New England	14.5	18.4	16.9	27.4	20.1
Middle Atlantic	16.5	20.6	22.1	20.9	28.8
East North Central	14.5	20.0	19.8	25.8	21.6
West North Central	18.1	20.6	30.9	26.3	30.8
South Atlantic	18.6	22.7	26.4	24.5	30.4
East South Central	17.2	23.0	23.9	26.1	30.5
West South Central	23.2	22.7	31.7	32.1	37.2
Mountain	15.6	17.2	20.7	27.2	23.7
Pacific	19.4	22.1	26.7	30.1	30.2
Type of Practice					
Solo	17.4	20.3	23.4	25.0	26.7
Non-solo	18.3	22.6	26.1	28.7	31.3
Location					
Nonmetropolitan	16.4	21.7	19.9	21.6	28.1
Metropolitan—					
Less than 1,000,000	17.7	21.1	25.4	26.9	26.4
1,000,000 and over	18.3	21.1	24.7	27.2	30.8
Physician Age					
Less than 36 years	13.8	18.2	24.9	24.1	26.1
36-45 years	17.5	23.1	25.7	26.3	29.1
46-55 years	20.9	22.9	25.4	29.4	30.1
56-65 years	18.5	18.8	22.2	23.7	29.3
66 or more years	13.2	16.6	19.9	26.5	20.3

Source: 1983-87, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active non-federal patient care physicians excluding residents.

[a] Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 38 (continued). **Standard Error of the Mean Office Expenses per Self-Employed Physician (in thousands of dollars), 1982-86[a]**

	1982	1983	1984	1985	1986
All Physicians	0.42	0.49	0.51	0.77	0.81
Specialty					
General/Family Practice	0.83	1.07	1.13	1.44	1.83
Internal Medicine	0.83	1.15	1.51	1.38	1.62
Surgery	1.05	1.16	1.12	2.29	1.72
Pediatrics	0.96	1.74	1.50	2.07	1.93
Obstetrics/Gynecology	2.15	2.69	1.65	2.82	3.03
Census Division					
New England	2.05	1.56	1.78	1.81	6.03
Middle Atlantic	0.78	1.39	1.33	1.89	1.59
East North Central	0.91	0.88	1.23	1.23	2.08
West North Central	1.34	1.83	1.83	4.51	3.72
South Atlantic		0.70	1.27	1.25	1.93
1.50					
East South Central	1.73	1.83	2.32	2.49	2.64
West South Central	1.76	1.75	1.56	3.62	2.43
Mountain	1.05	1.41	1.70	1.98	3.69
Pacific	1.35	1.38	1.30	1.74	1.99
Type of Practice					
Solo	0.43	0.59	0.60	0.91	0.97
Non-solo	0.96	0.83	0.90	1.36	1.41
Location					
Nonmetropolitan	0.84	1.25	1.61	1.46	1.75
Metropolitan—					
Less than 1,000,000	0.73	0.74	0.75	1.22	1.35
1,000,000 and over	0.57	0.76	0.75	1.17	1.16
Physician Age					
Less than 36 years	0.76	0.96	1.38	2.62	2.21
36-45 years	0.83	0.91	1.05	1.40	1.28
46-55 years	0.81	1.02	0.95	1.68	1.67
56-65 years	0.92	1.12	0.89	1.25	1.37
66 or more years	1.55	1.29	1.41	1.74	4.34

Table 39. **Mean Expenditures on Medical Supplies per Self-Employed Physician (in thousands of dollars), 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	7.6	9.3	10.7	11.2	13.2
Specialty					
General/Family Practice	10.8	11.6	13.7	14.8	17.6
Internal Medicine	7.5	10.9	11.0	11.5	14.9
Surgery	8.8	11.4	13.7	13.8	13.4
Pediatrics	7.4	7.2	9.6	12.6	14.8
Obstetrics/Gynecology	9.6	11.1	13.3	12.2	14.1
Census Division					
New England	5.0	6.4	4.7	10.1	10.3
Middle Atlantic	4.7	8.4	8.1	7.3	10.0
East North Central	7.0	8.0	10.4	10.1	11.0
West North Central	9.5	10.2	9.1	14.2	17.3
South Atlantic	7.8	8.9	12.4	12.1	14.6
East South Central	8.5	11.9	14.6	12.2	17.7
West South Central	11.3	13.2	15.6	15.3	18.4
Mountain	7.9	7.8	10.3	13.9	14.3
Pacific	7.7	9.5	10.6	10.7	10.8
Type of Practice					
Solo	7.1	8.6	10.3	9.9	11.0
Non-solo	8.3	10.3	11.5	13.4	16.9
Location					
Nonmetropolitan	9.2	9.2	11.9	13.5	15.5
Metropolitan—					
Less than 1,000,000	7.5	10.2	11.9	11.3	14.7
1,000,000 and over	7.3	8.4	9.5	10.6	11.1
Physician Age					
Less than 36 years	6.2	7.0	10.0	10.3	11.9
36-45 years	7.3	8.9	11.1	11.1	12.7
46-55 years	9.0	10.8	11.4	11.5	16.8
56-65 years	7.7	9.5	9.9	12.3	12.1
66 or more years	6.6	8.6	10.2	9.9	8.9

Source: 1983-87, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active non-federal patient care physicians excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 39 (continued). **Standard Error of the Mean Expenditures on Medical Supplies per Self-Employed Physician (in thousands of dollars), 1982-86[a]**

	1982	1983	1984	1985	1986
All Physicians	0.29	0.29	0.42	0.48	0.66
Specialty					
General/Family Practice	0.58	0.61	1.10	1.18	1.49
Internal Medicine	0.65	0.87	0.93	1.19	2.01
Surgery	0.68	0.73	1.06	1.15	1.44
Pediatrics	0.76	0.56	0.77	1.31	1.30
Obstetrics/Gynecology	1.16	0.88	1.10	1.18	1.64
Census Division					
New England	0.63	0.80	0.69	3.06	3.34
Middle Atlantic	0.59	0.78	0.79	0.80	0.94
East North Central	0.64	0.74	0.94	1.00	1.13
West North Central	1.31	0.97	1.26	3.49	2.80
South Atlantic	0.64	0.62	1.03	1.03	1.50
East South Central	1.10	1.20	2.22	1.10	2.92
West South Central	1.10	1.18	1.62	1.60	2.82
Mountain	1.19	0.81	1.49	1.91	4.32
Pacific	0.82	0.76	1.26	1.14	1.02
Type of Practice					
Solo	0.37	0.36	0.51	0.50	0.69
Non-solo	0.46	0.49	0.73	0.93	1.29
Location					
Nonmetropolitan	0.84	0.65	1.19	1.31	1.44
Metropolitan—					
Less than 1,000,000	0.42	0.47	0.73	0.67	1.24
1,000,000 and over	0.46	0.44	0.54	0.77	0.68
Physician Age					
Less than 36 years	0.60	0.68	1.10	1.20	1.48
36-45 years	0.50	0.50	0.73	0.70	0.88
46-55 years	0.69	0.62	0.79	0.92	2.06
56-65 years	0.62	0.64	1.00	1.34	1.00
66 or more years	0.68	1.03	1.49	1.83	1.08

Table 40. **Mean Professional Liability Premiums per Self-Employed Physician (in thousands of dollars), 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	5.8	6.9	8.4	10.5	12.8
Specialty					
General/Family Practice	3.5	4.2	4.6	6.8	7.3
Internal Medicine	3.7	4.5	4.9	5.8	7.1
Surgery	9.9	11.0	13.3	16.6	21.3
Pediatrics	2.9	3.9	3.4	4.7	6.3
Obstetrics/Gynecology	10.8	14.0	19.0	23.5	29.3
Census Division					
New England	5.5	6.6	7.1	9.8	10.7
Middle Atlantic	7.4	8.9	10.4	12.9	14.9
East North Central	5.3	6.9	7.6	10.7	13.4
West North Central	5.2	4.8	8.0	10.1	13.6
South Atlantic	5.6	6.1	8.6	11.3	14.4
East South Central	4.5	5.7	6.3	9.7	10.1
West South Central	4.2	5.2	5.5	7.0	8.1
Mountain	5.5	6.2	7.5	8.1	12.0
Pacific	6.8	8.6	9.9	11.1	12.8
Type of Practice					
Solo	5.6	6.5	7.9	9.5	11.9
Non-solo	6.0	7.5	9.2	11.8	14.0
Location					
Nonmetropolitan	4.4	5.1	7.1	7.6	10.9
Metropolitan—					
Less than 1,000,000	5.9	6.5	7.8	10.1	12.3
1,000,000 and over	6.1	7.8	9.2	11.6	13.8
Physician Age					
Less than 36 years	4.6	5.2	6.2	8.7	9.5
36-45 years	6.1	7.0	8.5	10.4	13.0
46-55 years	6.4	7.7	9.4	11.6	14.8
56-65 years	5.6	7.0	8.7	10.8	12.4
66 or more years	4.5	5.9	6.5	8.5	10.3

Source: 1983-87, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active non-federal patient care physicians excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 40 (continued). **Standard Error of the Mean Professional Liability Premiums per Self-Employed Physician (in thousands of dollars), 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	0.14	0.16	0.20	0.23	0.29
Specialty					
General/Family Practice	0.18	0.28	0.28	0.43	0.37
Internal Medicine	0.29	0.35	0.30	0.38	0.49
Surgery	0.35	0.34	0.49	0.49	0.67
Pediatrics	0.32	0.61	0.16	0.31	0.39
Obstetrics/Gynecology	0.55	0.68	0.94	1.05	1.21
Census Division					
New England	0.55	0.83	0.73	1.14	1.31
Middle Atlantic	0.44	0.50	0.60	0.66	0.81
East North Central	0.29	0.44	0.42	0.53	0.69
West North Central	0.47	0.34	0.71	0.82	0.91
South Atlantic	0.35	0.32	0.46	0.66	0.85
East South Central	0.38	0.51	0.91	0.94	0.81
West South Central	0.29	0.33	0.39	0.43	0.61
Mountain	0.47	0.52	0.64	0.65	0.95
Pacific	0.39	0.48	0.52	0.56	0.69
Type of Practice					
Solo	0.18	0.22	0.24	0.28	0.38
Non-solo	0.21	0.25	0.33	0.39	0.45
Location					
Nonmetropolitan	0.28	0.38	0.51	0.39	0.64
Metropolitan—					
Less than 1,000,000	0.20	0.21	0.29	0.34	0.43
1,000,000 and over	0.22	0.28	0.31	0.38	0.47
Physician Age					
Less than 36 years	0.37	0.38	0.47	0.58	0.56
36-45 years	0.24	0.29	0.34	0.39	0.53
46-55 years	0.30	0.33	0.44	0.49	0.63
56-65 years	0.26	0.36	0.42	0.54	0.56
66 or more years	0.35	0.63	0.54	0.70	0.93

Table 41. **Mean Expenditures on Medical Equipment per Self-Employed Physician (in thousands of dollars), 1982-86**[a]

	1982	1983	1984	1985	1986
All Physicians	5.1	5.1	5.5	5.9	7.0
Specialty					
General/Family Practice	4.3	4.3	4.8	4.8	6.9
Internal Medicine	5.8	4.9	4.8	7.0	5.8
Surgery	7.3	7.3	8.3	8.4	8.5
Pediatrics	2.4	4.4	3.3	3.9	4.7
Obstetrics/Gynecology	7.5	6.6	7.9	7.1	7.2
Census Division					
New England	4.1	5.1	2.7	4.9	3.2
Middle Atlantic	3.4	3.8	5.4	4.5	4.8
East North Central	4.2	4.9	3.9	5.4	4.9
West North Central	4.9	4.2	5.2	5.1	10.7
South Atlantic	4.6	5.9	6.0	5.6	8.9
East South Central	5.4	4.7	5.3	6.0	8.4
West South Central	7.9	7.2	9.0	6.9	8.0
Mountain	7.1	4.0	6.7	11.8	7.2
Pacific	5.1	5.1	5.4	5.6	7.9
Type of Practice					
Solo	4.8	4.8	5.0	5.6	5.5
Non-solo	5.4	5.5	6.5	6.4	9.4
Location					
Nonmetropolitan	4.9	4.7	4.5	6.3	7.1
Metropolitan—					
Less than 1,000,000	5.0	5.3	6.4	6.3	7.8
1,000,000 and over	5.2	5.0	5.0	5.4	6.1
Physician Age					
Less than 36 years	4.1	4.9	8.9	6.4	6.2
36-45 years	6.0	5.3	6.2	6.8	8.2
46-55 years	5.3	5.8	5.5	5.5	7.3
56-65 years	4.5	4.7	3.5	5.3	6.0
66 or more years	2.7	2.5	3.1	4.4	3.4

Source: 1983-87, AMA Socioeconomic Monitoring System core surveys. The population from which samples are drawn includes only active non-federal patient care physicians excluding residents.

[a] Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 41 (continued). **Standard Error of the Mean Expenditures on Medical Equipment per Self-Employed Physician (in thousands of dollars), 1982-86**[a]

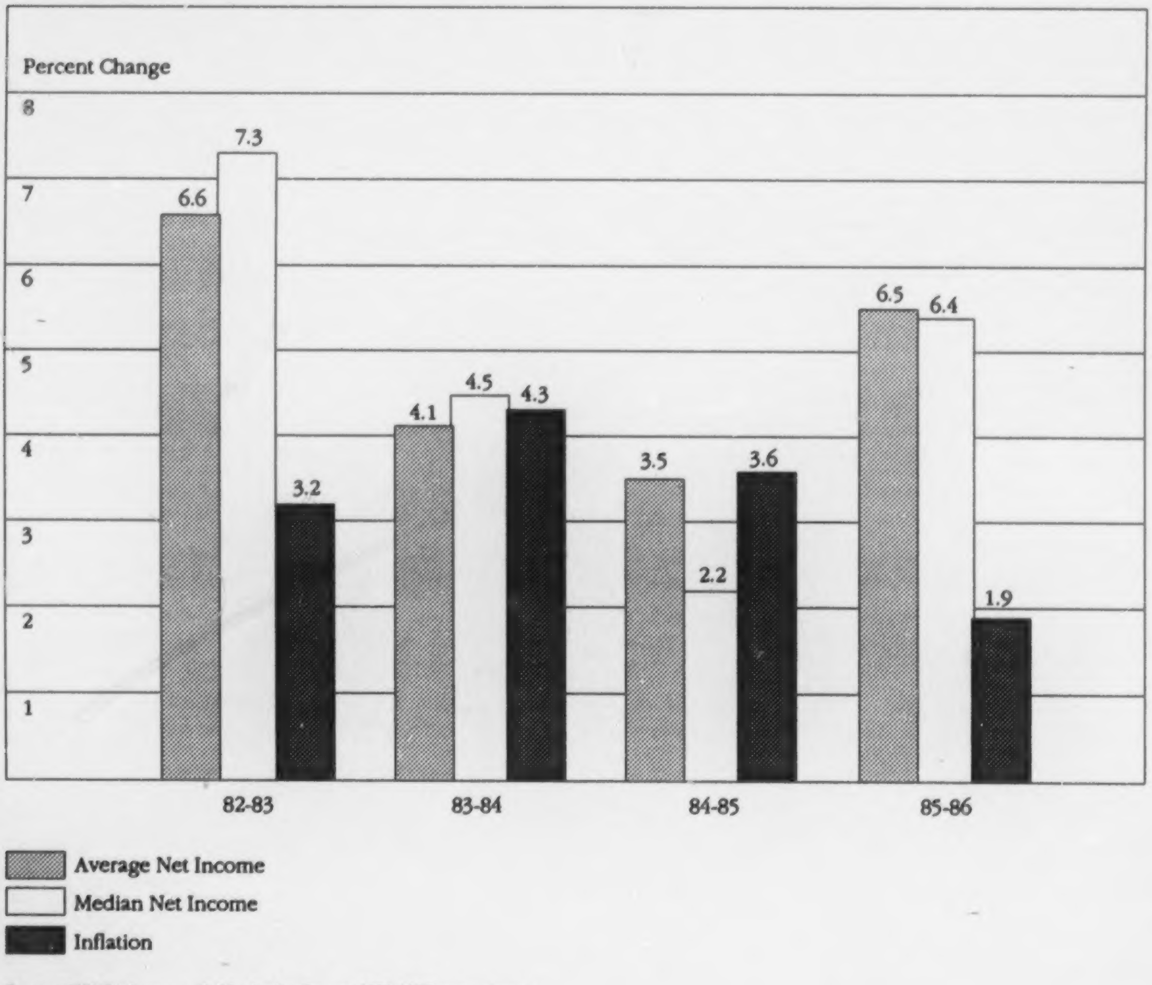
	1982	1983	1984	1985	1986
All Physicians	0.27	0.22	0.34	0.43	0.42
Specialty					
General/Family Practice	0.33	0.47	0.51	0.38	0.80
Internal Medicine	1.08	0.47	0.58	2.30	0.59
Surgery	0.68	0.60	0.92	0.79	0.67
Pediatrics	0.34	0.70	0.37	0.41	0.56
Obstetrics/Gynecology	1.32	0.71	1.41	0.89	1.18
Census Division					
New England	0.71	1.51	0.52	2.02	0.48
Middle Atlantic	0.44	0.36	1.00	0.65	0.50
East North Central	0.42	0.51	0.38	0.64	0.65
West North Central	0.75	0.61	0.90	0.75	2.45
South Atlantic	0.68	0.60	0.80	0.51	1.34
East South Central	0.66	0.63	0.56	0.75	1.93
West South Central	1.40	1.03	0.97	0.87	1.04
Mountain	1.37	0.54	2.96	5.31	1.30
Pacific	0.68	0.46	0.74	0.54	1.33
Type of Practice					
Solo	0.32	0.28	0.33	0.64	0.35
Non-solo	0.47	0.37	0.72	0.51	0.90
Location					
Nonmetropolitan	0.50	0.38	0.45	0.73	0.84
Metropolitan—					
Less than 1,000,000	0.33	0.31	0.69	0.53	0.71
1,000,000 and over	0.52	0.39	0.38	0.81	0.56
Physician Age					
Less than 36 years	0.53	0.52	1.95	0.78	0.71
36-45 years	0.59	0.34	0.48	1.00	0.85
46-55 years	0.45	0.51	0.70	0.68	0.79
56-65 years	0.64	0.56	0.35	0.53	0.79
66 or more years	0.29	0.37	0.64	1.50	1.05

Physician Net Income After Expenses Before Taxes

Physician net income is defined to include all earnings from medical practice after expenses before taxes, including fringe benefits and contributions into deferred compensation plans. A special effort is made in the Socioeconomic Monitoring System surveys to ensure that deferred compensation is included in the net income that is reported.

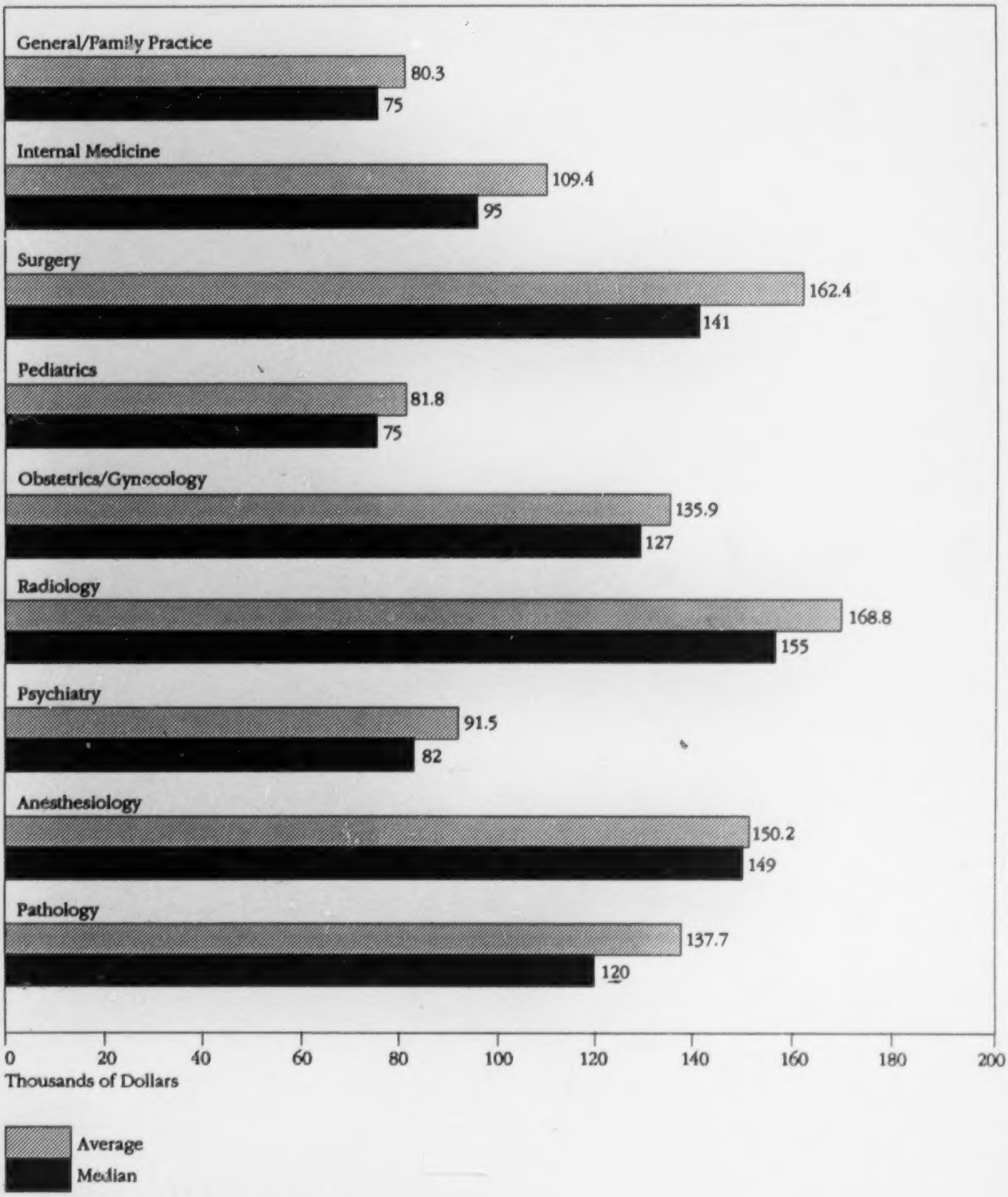
Both physician average and median net income increased at a faster rate than inflation in 1986 for the first time since 1983 (see Figure 16). Although average net income reached $119,500, half of physicians earned $100,000 or less. As shown in Figure 17 earnings vary by specialty. The highest earnings were among radiologists; the lowest were among general/family practitioners and pediatricians.

Figure 16. **Percent Change in Average and Median Net Income After Expenses Before Taxes of All Physicians, 1982-1986**



Source: AMA Socioeconomic Monitoring System 1983-1987 core surveys.

Figure 17. **Average and Median Physician Net Income After Expenses Before Taxes (in thousands of dollars) by Specialty, 1986**



Source: AMA Socioeconomic Monitoring System 1987 core survey.

Table 42. **Mean Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1986**[a]

		Specialty								
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	119.5	80.3	109.4	162.4	81.8	135.9	168.8	91.5	150.2	137.7
Census Division										
New England	107.1	.	95.8	153.8	.	.	.	83.9	.	.
Middle Atlantic	114.6	70.1	111.0	160.1	73.3	119.8	159.9	100.4	138.8	.
East North Central	126.6	84.1	102.5	186.1	89.4	131.7	186.0	88.6	157.5	130.9
West North Central	120.7	76.8	123.6	161.2	.	.	.	.	.	.
South Atlantic	119.6	82.6	110.6	155.6	76.8	146.5	180.9	96.0	152.7	.
East South Central	122.6	95.3	132.5	155.3	.	.	.	.	.	.
West South Central	129.0	82.7	122.5	166.3	85.5	148.7	181.9	108.0	.	.
Mountain	108.5	75.0	94.0	136.9	.	.	.	.	.	.
Pacific	119.0	74.6	105.6	161.1	93.7	134.4	160.1	80.2	139.3	.
Type of Practice										
Solo	115.5	79.5	105.2	152.4	85.0	140.1	.	96.0	159.9	.
Non-solo	122.1	81.1	111.9	172.6	80.5	132.9	169.2	84.2	146.5	137.0
Location										
Nonmetropolitan	107.7	86.8	102.1	138.3	75.2	.	.	.	.	.
Metropolitan—										
Less than 1,000,000	124.5	78.1	114.3	168.9	82.3	140.3	183.2	92.1	155.6	139.7
1,000,000 and over	117.5	78.4	106.3	161.9	82.3	129.5	154.3	91.7	147.4	129.4
Employment Status										
Self-employed	131.1	84.3	118.6	168.5	90.8	144.5	195.9	98.3	160.6	177.8
Employee	91.7	68.8	82.3	126.7	69.2	104.6	124.7	76.0	130.6	105.3
Physician Age										
Less than 36 years	90.3	71.5	81.1	129.6	63.8	105.1	112.6	.	122.8	.
36-45 years	124.3	86.3	118.7	169.7	80.2	152.6	171.2	86.7	152.6	128.2
46-55 years	140.2	83.2	125.4	180.9	99.0	142.2	183.5	105.0	160.3	169.3
56-65 years	119.7	87.9	106.1	155.2	85.8	125.6	177.4	92.6	166.2	134.0
66 or more years	83.0	59.7	79.6	104.6	.	.	.	70.1	.	.

Source: 1987 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active non-federal patient care physicians, excluding residents.

a. All data are weighted to adjust for non-response bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 42 (continued). **Standard Error of Mean Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1986**[a]

		Specialty									
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	1.41	2.15	3.02	4.10	2.38	4.67	5.23	2.69	4.30	5.76
Census Division										
New England	4.81	.	6.09	14.92	.	.	.	5.64	.	.
Middle Atlantic	3.33	4.65	7.90	9.40	5.35	10.74	12.82	6.49	10.25	.
East North Central	4.10	4.75	5.44	12.39	7.22	13.45	12.03	7.21	10.26	8.36
West North Central	5.02	4.03	15.29	13.99	.	.	.	.	.	.
South Atlantic	3.08	3.86	7.30	8.50	4.46	11.28	12.16	8.59	10.15	.
East South Central	6.63	16.26	15.20	17.59	.	.	.	.	.	.
West South Central	4.87	5.00	14.81	14.07	7.91	12.49	15.57	11.86	.	.
Mountain	5.00	8.01	12.64	14.98	.	.	.	.	.	.
Pacific	3.50	4.33	7.08	9.98	6.84	10.90	13.57	3.70	11.88	.
Type of Practice										
Solo	2.26	2.97	4.41	5.93	4.98	7.57	.	3.72	7.73	.
Non-solo	1.81	3.09	4.06	5.59	2.68	5.87	5.45	3.64	5.13	6.09
Location										
Nonmetropolitan	4.33	5.82	9.70	13.40	5.13	.	.	.	.	.
Metropolitan—										
Less than 1,000,000	2.11	2.65	4.94	6.06	3.75	7.38	7.37	5.06	5.42	6.08
1,000,000 and over	2.11	3.37	4.05	6.06	3.49	6.37	8.11	3.26	7.05	11.61
Employment Status										
Self-employed	1.81	2.71	3.56	4.59	3.41	5.14	6.36	3.44	5.49	9.39
Employee	1.70	2.66	4.93	6.93	2.70	9.17	6.74	3.56	6.30	4.89
Physician Age										
Less than 36 years	2.53	3.21	5.39	10.54	4.15	9.46	9.77	.	7.96	.
36-45 years	2.39	5.38	5.14	7.21	4.06	8.27	8.75	5.00	6.89	9.06
46-55 years	3.40	4.08	8.47	7.52	5.06	9.06	8.06	5.83	9.59	13.17
56-65 years	3.08	4.14	6.14	9.75	5.53	9.91	14.94	4.84	12.17	8.70
66 or more years	3.28	5.28	4.59	9.68	.	.	.	5.86	.	.

Table 43. **Mean Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1977-79, 1981-86[a]**

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	60.4	64.6	77.4	89.9	97.7	104.1	108.4	112.2	119.5
Specialty									
General/Family Practice	49.8	53.7	60.7	71.5	71.4	66.9	71.6	77.9	80.3
Internal Medicine	60.3	62.5	74.3	83.4	86.9	94.6	104.2	102.0	109.4
Surgery	71.8	80.2	94.5	114.5	128.6	144.3	151.0	155.0	162.4
Pediatrics	45.9	49.7	58.2	63.5	70.5	70.8	73.7	76.2	81.8
Obstetrics/Gynecology	69.7	70.0	90.7	111.0	112.3	118.1	118.8	124.3	135.9
Radiology	74.9	81.3	95.8	108.0	133.3	144.3	139.7	144.3	168.8
Psychiatry	47.5	49.7	61.5	70.5	75.8	79.2	85.1	87.2	91.5
Anesthesiology	65.9	72.6	90.7	115.2	131.9	141.6	143.9	142.7	150.2
Census Division									
New England	52.7	55.2	65.0	83.0	80.3	84.9	87.8	106.0	107.1
Middle Atlantic	55.2	58.0	72.1	82.4	89.8	98.7	99.3	106.6	114.6
East North Central	61.7	69.4	80.7	96.4	105.2	111.1	109.8	119.3	126.6
West North Central	60.6	69.5	78.2	85.6	105.7	107.7	109.1	112.1	120.7
South Atlantic	61.1	64.0	78.6	91.4	95.9	104.5	113.6	111.2	119.6
East South Central	68.0	79.2	86.0	94.8	103.8	111.3	121.8	114.8	122.6
West South Central	67.6	69.7	86.3	97.9	118.4	122.9	122.2	124.6	129.0
Mountain	55.4	61.2	71.9	87.9	93.0	89.2	101.5	95.9	108.5
Pacific	62.7	63.7	77.9	88.8	91.0	100.5	109.2	112.0	119.0
Type of Practice									
Solo	55.5	60.4	74.7	86.1	94.0	98.7	104.8	111.0	115.5
Non-solo	67.1	68.9	79.9	93.3	100.5	108.5	111.2	113.0	122.1
Location									
Nonmetropolitan	56.2	63.7	73.1	85.9	86.9	86.9	91.3	93.3	107.7
Metropolitan—									
Less than 1,000,000	62.5	66.7	78.1	94.2	101.5	108.7	115.2	117.2	124.5
1,000,000 and over	59.5	62.9	77.7	86.9	96.7	103.8	106.3	111.6	117.5
Physician Age									
Less than 36 years	44.5	48.8	61.8	64.4	70.9	77.3	79.6	84.3	90.0
36-45 years	67.1	72.2	85.0	97.9	105.5	106.7	117.4	115.7	124.4
46-55 years	68.5	73.4	88.1	105.9	115.1	129.9	126.0	133.6	140.2
56-65 years	59.7	63.3	75.5	93.1	97.7	101.1	103.0	111.9	119.7
66 or more years	40.8	41.8	56.2	64.8	62.5	72.0	81.7	88.6	83.0

Source: 1982-87, AMA Socioeconomic Monitoring System core surveys. 1978-80, AMA Periodic Survey of Physicians. The population from which samples are drawn includes only active non-federal patient care physicians excluding residents.

[a] Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 43 (continued). **Standard Error of the Mean Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	0.57	0.64	0.71	1.50	1.22	1.38	1.29	1.37	1.41
Specialty									
General/Family Practice	1.00	1.08	1.28	3.22	1.75	1.71	1.73	1.95	2.15
Internal Medicine	1.37	1.40	1.57	3.77	2.68	3.57	3.39	3.23	3.02
Surgery	1.43	1.82	1.72	3.82	3.92	4.14	4.08	4.34	4.10
Pediatrics	1.62	1.60	1.50	4.82	2.86	3.55	2.53	2.50	2.38
Obstetrics/Gynecology	2.15	2.12	2.77	8.85	4.58	4.86	3.82	4.30	4.67
Radiology	2.74	2.92	5.10	3.70	3.84	4.75	4.76	4.55	5.23
Psychiatry	1.19	1.29	2.05	2.31	2.59	2.61	2.21	3.06	2.69
Anesthesiology	2.94	2.72	2.59	4.33	4.23	3.97	4.38	5.17	4.30
Census Division									
New England	1.82	2.08	2.14	7.54	3.39	3.60	3.45	4.94	4.81
Middle Atlantic	1.25	1.62	1.79	4.24	3.13	3.99	2.84	3.00	3.33
East North Central	1.36	1.67	1.65	4.27	3.05	3.96	3.17	4.05	4.10
West north Central	1.94	2.54	2.08	3.53	4.58	6.02	5.17	6.22	5.02
South Atlantic	1.50	1.63	1.68	3.43	2.78	3.01	3.44	3.33	3.08
East South Central	2.61	3.36	4.03	6.07	4.20	5.24	6.00	5.96	6.63
West South Central	2.27	2.28	2.78	3.90	5.23	4.48	4.58	4.56	4.87
Mountain	2.26	2.24	2.40	4.60	4.81	4.36	4.31	4.02	5.00
Pacific	1.40	1.31	1.71	3.53	2.69	2.96	3.12	3.05	3.50
Type of Practice									
Solo	0.72	0.91	1.06	2.25	1.91	2.07	2.00	2.13	2.26
Non-solo	0.89	0.89	0.95	2.01	1.57	1.84	1.67	1.79	1.81
Location									
Nonmetropolitan	1.66	1.70	2.33	2.91	2.81	2.72	3.07	3.19	4.33
Metropolitan—									
Less than 1,000,000	0.89	1.05	1.05	2.43	1.79	2.02	2.19	2.18	2.11
1,000,000 and over	0.82	0.90	1.04	2.21	1.93	2.20	1.75	2.01	2.11
Physician Age									
Less than 36 years	1.66	1.53	1.91	2.34	2.16	2.34	2.49	2.59	2.51
36-45 years	1.12	1.27	1.36	2.58	2.40	2.24	2.35	2.15	2.39
46-55 years	1.01	1.22	1.44	3.54	2.55	3.42	2.91	3.27	3.40
56-65 years	1.17	1.28	1.37	4.04	2.41	3.09	2.34	3.10	3.08
66 or more years	1.18	1.39	1.65	3.05	2.79	3.11	4.30	5.73	3.28

Table 44. **Twenty-fifth Percentile Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1986[a]**

		Specialty								
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	70.0	53.0	67.0	95.0	55.0	89.0	120.0	65.0	110.0	85.0
Census Division										
New England	70.0	.	70.0	92.0	.	.	.	65.0	.	.
Middle Atlantic	68.0	50.0	70.0	98.0	45.0	80.0	100.0	68.0	100.0	.
East North Central	74.0	56.0	65.0	100.0	58.0	88.0	138.0	65.0	114.0	95.0
West North Central	75.0	55.0	76.0	110.0	.	.	.	.	.	.
South Atlantic	68.0	60.0	62.0	94.0	50.0	82.0	125.0	67.0	110.0	.
East South Central	65.0	46.0	90.0	92.0	.	.	.	.	.	.
West South Central	71.0	48.0	70.0	94.0	55.0	110.0	130.0	70.0	.	.
Mountain	60.0	54.0	60.0	79.0	.	.	.	.	.	.
Pacific	70.0	55.0	72.0	96.0	59.0	93.0	119.0	65.0	80.0	.
Type of Practice										
Solo	65.0	49.0	65.0	84.0	50.0	83.0	.	68.0	120.0	.
Non-solo	71.0	56.0	68.0	110.0	55.0	90.0	120.0	63.0	100.0	80.0
Location										
Nonmetropolitan	66.0	57.0	65.0	80.0	50.0	.	.	.	.	.
Metropolitan—										
Less than 1,000,000	71.0	52.0	67.0	103.0	55.0	90.0	128.0	60.0	120.0	90.0
1,000,000 and over	70.0	48.0	68.0	91.0	55.0	88.0	100.0	67.0	96.0	71.0
Employment Status										
Self-employed	78.0	53.0	76.0	100.0	60.0	93.0	142.0	70.0	120.0	120.0
Employee	60.0	52.0	60.0	80.0	50.0	70.0	82.0	60.0	90.0	70.0
Physician Age										
Less than 36 years	58.0	50.0	50.0	77.0	47.0	70.0	80.0	.	81.0	.
36-45 years	75.0	57.0	75.0	105.0	54.0	100.0	120.0	62.0	113.0	79.0
46-55 years	83.0	62.0	75.0	110.0	72.0	98.0	145.0	76.0	110.0	110.0
56-65 years	70.0	60.0	75.0	85.0	62.0	76.0	110.0	67.0	120.0	90.0
66 or more years	49.0	40.0	57.0	54.0	.	.	.	50.0	.	.

Source: 1987 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active non-federal patient care physicians, excluding residents.

a. All data are weighted to adjust for non-response bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 45. **Median Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1986**[a]

		Specialty									
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	100.0	75.0	95.0	141.0	75.0	127.0	155.0	82.0	149.0	120.0
Census Division										
New England	92.0	.	91.0	146.0	.	.	.	80.0	.	.
Middle Atlantic	95.0	70.0	90.0	140.0	67.0	110.0	137.0	90.0	124.0	.
East North Central	101.0	80.0	92.0	150.0	78.0	100.0	165.0	80.0	160.0	120.0
West North Central	105.0	75.0	104.0	142.0	.	.	.	.	.	.
South Atlantic	100.0	78.0	100.0	130.0	85.0	145.0	185.0	79.0	155.0	.
East South Central	100.0	68.0	125.0	130.0	.	.	.	.	.	.
West South Central	106.0	76.0	100.0	140.0	70.0	145.0	166.0	103.0	.	.
Mountain	90.0	67.0	80.0	140.0	.	.	.	.	.	.
Pacific	100.0	70.0	92.0	140.0	82.0	128.0	151.0	80.0	137.0	.
Type of Practice										
Solo	98.0	72.0	96.0	122.0	80.0	139.0	.	86.0	155.0	.
Non-solo	100.0	75.0	94.0	151.0	75.0	120.0	155.0	79.0	138.0	120.0
Location										
Nonmetropolitan	90.0	77.0	100.0	110.0	82.0	.	.	.	.	.
Metropolitan—										
Less than 1,000,000	104.0	72.0	100.0	150.0	75.0	125.0	170.0	80.0	150.0	134.0
1,000,000 and over	98.0	75.0	90.0	139.0	72.0	125.0	145.0	85.0	150.0	100.0
Employment Status										
Self-employed	110.0	79.0	103.0	150.0	86.0	135.0	180.0	90.0	155.0	162.0
Employee	80.0	65.0	72.0	115.0	65.0	98.0	124.0	72.0	125.0	95.0
Physician Age										
Less than 36 years	78.0	63.0	70.0	108.0	60.0	100.0	102.0	.	125.0	.
36-45 years	103.0	80.0	100.0	150.0	72.0	135.0	151.0	79.0	145.0	110.0
46-55 years	120.0	80.0	106.0	160.0	95.0	135.0	176.0	100.0	152.0	150.0
56-65 years	100.0	78.0	100.0	135.0	80.0	112.0	149.0	84.0	180.0	120.0
66 or more years	70.0	50.0	80.0	90.0	.	.	.	67.0	.	.

Source: 1987 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active non-federal patient care physicians, excluding residents.

a. All data are weighted to adjust for non-response bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

b. Includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 46. **Seventy-fifth Percentile Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1986[a]**

		Specialty								
	All Physicians[b]	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	150.0	100.0	130.0	200.0	100.0	170.0	210.0	106.0	195.0	170.0
Census Division										
New England	130.0	.	116.0	195.0	.	.	.	105.0	.	.
Middle Atlantic	140.0	100.0	120.0	208.0	87.0	140.0	195.0	129.0	171.0	.
East North Central	150.0	105.0	130.0	232.0	109.0	165.0	220.0	105.0	190.0	160.0
West North Central	142.0	93.0	140.0	200.0	.	.	.	.	.	.
South Atlantic	150.0	100.0	135.0	192.0	98.0	196.0	230.0	100.0	180.0	.
East South Central	146.0	100.0	200.0	170.0	.	.	.	.	.	.
West South Central	160.0	105.0	150.0	193.0	99.0	201.0	230.0	132.0	.	.
Mountain	140.0	92.0	120.0	180.0	.	.	.	.	.	.
Pacific	150.0	90.0	130.0	195.0	118.0	180.0	185.0	91.0	183.0	.
Type of Practice										
Solo	145.0	100.0	125.0	195.0	102.0	182.0	.	115.0	200.0	.
Non-solo	150.0	96.0	135.0	205.0	99.0	160.0	212.0	100.0	187.0	172.0
Location										
Nonmetropolitan	129.0	106.0	130.0	160.0	90.0	.	.	.	.	.
Metropolitan—										
Less than 1,000,000	159.0	97.0	135.0	200.0	100.0	182.0	230.0	118.0	200.0	172.0
1,000,000 and over	145.0	100.0	125.0	212.0	100.0	165.0	190.0	105.0	195.0	170.0
Employment Status										
Self-employed	165.0	100.0	140.0	210.0	110.0	182.0	240.0	118.0	200.0	212.0
Employee	110.0	81.0	99.0	160.0	83.0	135.0	150.0	89.0	170.0	134.0
Physician Age										
Less than 36 years	110.0	90.0	100.0	176.0	80.0	120.0	140.0	.	150.0	.
36-45 years	150.0	100.0	140.0	200.0	98.0	200.0	221.0	105.0	183.0	162.0
46-55 years	175.0	100.0	150.0	220.0	115.0	190.0	208.0	120.0	200.0	200.0
56-65 years	150.0	125.0	125.0	210.0	101.0	155.0	216.0	111.0	204.0	165.0
66 or more years	100.0	70.0	96.0	110.0	.	.	.	86.0	.	.

Source: 1987 AMA Socioeconomic Monitoring System core survey. The population from which samples are drawn includes only active non-federal patient care physicians, excluding residents.

[a] All data are weighted to adjust for non-response bias. See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

[b] Includes physicians in specialties not listed separately.

. Indicates fewer than twenty observations.

Table 47. **Twenty-fifth Percentile Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	39.0	40.0	49.0	50.0	55.0	60.0	63.0	65.0	70.0
Specialty									
General/Family Practice	30.0	35.0	39.0	42.0	45.0	42.0	45.0	50.0	53.0
Internal Medicine	40.0	40.0	47.0	45.0	50.0	57.0	66.0	62.0	67.0
Surgery	45.0	50.0	60.0	63.0	71.0	87.0	90.0	87.0	95.0
Pediatrics	30.0	32.0	40.0	38.0	43.0	42.0	46.0	50.0	55.0
Obstetrics/Gynecology	46.0	48.0	60.0	60.0	66.0	70.0	80.0	80.0	89.0
Radiology	52.0	58.0	65.0	65.0	80.0	90.0	90.0	89.0	120.0
Psychiatry	34.0	35.0	40.0	46.0	52.0	54.0	60.0	55.0	65.0
Anesthesiology	46.0	54.0	68.0	75.0	90.0	100.0	98.0	99.0	110.0
Census Division									
New England	36.0	35.0	42.0	[illegible]	48.0	51.0	60.0	27.0	42.0
Middle Atlantic	35.0	33.0	42.0	48.0	50.0	55.0	57.0	33.0	45.0
East North Central	40.0	44.0	50.0	51.0	60.0	62.0	70.0	40.0	44.0
West North Central	40.0	43.0	54.0	55.0	60.0	60.0	63.0	45.0	58.0
South Atlantic	37.0	43.0	50.0	48.0	55.0	60.0	62.0	47.0	61.0
East South Central	44.0	50.0	48.0	48.0	60.0	65.0	65.0	54.0	63.0
West South Central	40.0	45.0	55.0	55.0	62.0	70.0	70.0	50.0	60.0
Mountain	35.0	40.0	50.0	50.0	52.0	54.0	60.0	51.0	41.0
Pacific	40.0	40.0	48.0	48.0	53.0	60.0	68.0	51.0	52.0
Type of Practice									
Solo	34.0	37.0	45.0	45.0	51.0	55.0	60.0	60.0	65.0
Non-solo	45.0	45.0	50.0	53.0	58.0	63.0	66.0	65.0	71.0
Location									
Nonmetropolitan	34.0	40.0	48.0	50.0	54.0	52.0	50.0	60.0	66.0
Metropolitan—									
Less than 1,000,000	40.0	42.0	50.0	52.0	58.0	63.0	65.0	68.0	71.0
1,000,000 and over	38.0	40.0	48.0	48.0	54.0	58.0	65.0	63.0	70.0
Physician Age									
Less than 36 years	26.0	31.0	40.0	36.0	42.0	45.0	45.0	49.0	58.0
36-45 years	45.0	48.0	57.0	57.0	60.0	62.0	71.0	70.0	75.0
46-55 years	48.0	50.0	60.0	62.0	72.0	77.0	76.0	80.0	83.0
56-65 years	40.0	40.0	50.0	55.0	58.0	60.0	64.0	65.0	70.0
66 or more years	22.0	22.0	30.0	36.0	32.0	35.0	40.0	45.0	49.0

Source: 1982-87, AMA Socioeconomic Monitoring System core surveys. 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active non-federal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 48. **Median Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	55.0	60.0	70.0	75.0	82.0	88.0	92.0	94.0	100.0
Specialty									
General/Family Practice	46.0	50.0	55.0	60.0	63.0	60.0	64.0	70.0	75.0
Internal Medicine	57.0	58.0	68.0	72.0	75.0	83.0	90.0	90.0	95.0
Surgery	68.0	71.0	85.0	100.0	110.0	124.0	128.0	129.0	141.0
Pediatrics	45.0	48.0	55.0	55.0	62.0	62.0	67.0	70.0	75.0
Obstetrics/Gynecology	65.0	68.0	81.0	96.0	107.0	104.0	110.0	120.0	127.0
Radiology	72.0	80.0	85.0	105.0	120.0	128.0	122.0	135.0	155.0
Psychiatry	45.0	48.0	56.0	64.0	68.0	70.0	80.0	80.0	82.0
Anesthesiology	62.0	70.0	85.0	105.0	120.0	137.0	145.0	133.0	149.0
Census Division									
New England	48.0	51.0	60.0	65.0	71.0	77.0	80.0	57.0	66.0
Middle Atlantic	52.0	50.0	60.0	70.0	75.0	80.0	85.0	61.0	81.0
East North Central	58.0	61.0	75.0	80.0	90.0	90.0	98.0	71.0	75.0
West North Central	55.0	60.0	72.0	80.0	90.0	85.0	90.0	82.0	102.0
South Atlantic	55.0	60.0	72.0	77.0	80.0	89.0	91.0	79.0	100.0
East South Central	66.0	75.0	80.0	80.0	90.0	100.0	100.0	85.0	104.0
West South Central	61.0	64.0	75.0	80.0	100.0	103.0	105.0	91.0	97.0
Mountain	51.0	56.0	69.0	74.0	81.0	80.0	91.0	84.0	82.0
Pacific	58.0	60.0	70.0	77.0	80.0	90.0	95.0	90.0	92.0
Type of Practice									
Solo	50.0	55.0	65.0	72.0	79.0	83.0	90.0	94.0	98.0
Non-solo	60.0	63.0	72.0	80.0	85.0	90.0	94.0	95.0	100.0
Location									
Nonmetropolitan	50.0	60.0	65.0	75.0	76.0	78.0	78.0	84.0	90.0
Metropolitan—									
Less than 1,000,000	60.0	60.0	70.0	79.0	87.0	92.0	97.0	100.0	104.0
1,000,000 and over	55.0	60.0	70.0	72.0	80.0	86.0	92.0	93.0	98.0
Physician Age									
Less than 36 years	40.0	44.0	55.0	55.0	60.0	65.0	68.0	72.0	78.0
36-45 years	60.0	65.0	78.0	82.0	90.0	90.0	100.0	100.0	103.0
46-55 years	64.0	70.0	80.0	90.0	100.0	110.0	110.0	115.0	120.0
56-65 years	55.0	59.0	69.0	78.0	85.0	86.0	92.0	93.0	100.0
66 or more years	37.0	37.0	50.0	55.0	55.0	60.0	68.0	73.0	70.0

Source: 1982-87, AMA Socioeconomic Monitoring System core surveys. 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active non-federal patient care physicians, excluding residents.

a. Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Table 49. **Seventy-fifth Percentile Physician Net Income After Expenses Before Taxes (in thousands of dollars), 1977-79, 1981-86**[a]

	1977	1978	1979	1981	1982	1983	1984	1985	1986
All Physicians	75.0	80.0	98.0	112.0	121.0	130.0	135.0	140.0	150.0
Specialty									
General/Family Practice	64.0	70.0	75.0	83.0	90.0	85.0	89.0	95.0	100.0
Internal Medicine	75.0	80.0	90.0	102.0	110.0	119.0	127.0	123.0	130.0
Surgery	90.0	100.0	112.0	141.0	151.0	176.0	183.0	196.0	200.0
Pediatrics	60.0	64.0	74.0	74.0	90.0	85.0	92.0	92.0	100.0
Obstetrics/Gynecology	88.0	86.0	113.0	134.0	144.0	150.0	150.0	159.0	170.0
Radiology	91.0	100.0	110.0	149.0	172.0	185.0	185.0	195.0	210.0
Psychiatry	60.0	60.0	76.0	87.0	89.0	95.0	105.0	105.0	106.0
Anesthesiology	80.0	91.0	108.0	145.0	168.0	174.0	185.0	170.0	195.0
Census Division									
New England	68.0	70.0	80.0	90.0	100.0	101.0	105.0	94.0	114.0
Middle Atlantic	70.0	75.0	90.0	100.0	115.0	120.0	125.0	104.0	126.0
East North Central	78.0	83.0	100.0	118.0	132.0	140.0	133.0	117.0	130.0
West North Central	72.0	84.0	98.0	110.0	131.0	135.0	130.0	111.0	168.0
South Atlantic	80.0	80.0	100.0	120.0	121.0	131.0	140.0	130.0	151.0
East South Central	86.0	100.0	110.0	130.0	135.0	141.0	163.0	150.0	167.0
West South Central	85.0	90.0	105.0	130.0	150.0	160.0	150.0	149.0	172.0
Mountain	70.0	80.0	88.0	117.0	117.0	105.0	125.0	140.0	145.0
Pacific	75.0	79.0	97.0	112.0	113.0	126.0	140.0	133.0	146.0
Type of Practice									
Solo	70.0	75.0	92.0	106.0	120.0	124.0	130.0	142.0	145.0
Non-solo	81.0	85.0	100.0	118.0	125.0	135.0	139.0	139.0	150.0
Location									
Nonmetropolitan	71.0	80.0	90.0	113.0	107.0	115.0	120.0	120.0	129.0
Metropolitan—									
Less than 1,000,000	80.0	83.0	100.0	120.0	130.0	139.0	144.0	150.0	159.0
1,000,000 and over	75.0	80.0	96.0	110.0	120.0	127.0	130.0	137.0	145.0
Physician Age									
Less than 36 years	60.0	60.0	75.0	80.0	90.0	97.0	100.0	100.0	110.0
36-45 years	81.0	90.0	100.0	123.0	131.0	135.0	150.0	142.0	150.0
46-55 years	85.0	90.0	103.0	126.0	144.0	154.0	155.0	160.0	175.0
56-65 years	72.0	77.0	91.0	111.0	120.0	121.0	125.0	140.0	150.0
66 or more years	55.0	57.0	73.0	82.0	79.0	91.0	100.0	101.0	100.0

Source: 1982-87, AMA Socioeconomic Monitoring System core surveys. 1978-80, AMA Periodic Surveys of Physicians. The population from which samples are drawn includes only active non-federal patient care physicians, excluding residents.

[a] Data, other than in the specialty breakdown, are based on responses from physicians in all specialties. All data are weighted to adjust for non-response bias. This will cause figures to differ from those reported in previous editions of the Gray Book.

See Appendix B for information on weighting and computation procedures. See Appendix D for information on definitions.

Appendices

Design and Methodology of the AMA Socioeconomic Monitoring System

Weighting and Computation Methodology

SMS Questionnaire Summary

Definitions of Variables

Appendix A
The Design and Methodology of the AMA Socioeconomic Monitoring System

The Socioeconomic Monitoring System (SMS) was developed in 1981 in response to the need of physicians and policymakers for more timely and frequent socioeconomic information on the practice of medicine than had been available in the past. This program represents an outgrowth of over 15 years of AMA experience in monitoring socioeconomic aspects of medical practice. Its predecessor, the Periodic Survey of Physicians (PSP) collected similar information on an annual basis. The sixth full program year for SMS will be completed in 1987.

SMS is designed to provide periodic information on a range of characteristics of medical practice, such as physician's earnings, expenses, work patterns and fees. In addition, a portion of each SMS survey is devoted to collecting information regarding current issues facing physicians.

The purpose of this paper is to provide a description of the current SMS program design. The first section provides an overview of program characteristics. This is followed by discussions of the SMS survey sample design, questionnaire content, field procedures and aspects of reporting SMS results.

Overview of SMS Program Characteristics

The two SMS surveys conducted this year include an annual core survey and a supplemental survey. The core and supplemental surveys differ in the range of information collected, sample size and the level of detail for which results are reported. The purpose of the annual core survey is to provide current data on a full range of economic and practice characteristics each year. The supplemental survey focuses on a more limited range of characteristics — those for which changes occur rapidly and those for which information is needed on a more frequent basis. The supplemental survey is also used to obtain information on topics of current policy concern. The average core survey interview lasts 25 minutes, while the supplemental survey averages 16 minutes in length.

The annual core survey obtained data from approximately 4,000 physicians, while the supplemental survey obtained data from approximately 2,800 physicians. The sample size is the primary determinant of the level of disaggregation at which results can be reliably reported. Results are disaggregated into a larger number of specialties and geographical areas for the core survey than for the supplemental survey.

The 1987 core survey was fielded from March through July. The timing of the beginning of the core survey is designed to coincide with the income tax return filing deadline in order to improve the reliability of information that can be obtained on physician earnings and practice expenses for the previous year. The supplemental survey in 1987 was fielded from August through November. The field periods for the core and supplemental surveys were respectively twenty-one and twelve weeks.

Compared with the two surveys in 1987 and 1986, three surveys were fielded in 1985, and four were fielded in each prior year of the SMS program. The additional surveys in previous years were similar in nature to the 1987 supplemental survey. While the number of respondents to core surveys has been approximately 4,000 every year, supplemental surveys prior to 1986 included only about 1,200 respondents each.

This appendix was prepared by Kevin Kenward, Project Coordinator in the AMA Division of Survey and Data Resources. It is an update of the article by Mary Lou S. White, in R.A. Reynolds and D.J. Duann (editors), 1985 Socioeconomic Characteristics of Medical Practice (American Medical Association, 1985).

Sample Design

The SMS surveys are designed to provide representative information on the population of all nonfederal physicians who spend the greatest proportion of their time in patient care activities. This includes both office and hospital-based physicians, but excludes residents. Samples for SMS surveys are selected from the AMA Physician Masterfile. The Masterfile contains current and historical information on every Doctor of Medicine in the United States, including both members and nonmembers of the AMA. Graduates of U.S. medical schools who are temporarily practicing overseas, and graduates of foreign medical schools who live in the U.S. are also included on the file.

Data included on the Masterfile are obtained from primary sources, including many organizations and institutions. The only information obtained directly from individual physicians concerns current professional activities and preferred mailing addresses. These data are obtained on a quadrennial basis from the entire U.S. physician population and on a monthly basis from those physicians with changes in address or professional status. These changes may be signaled by input from professional organizations, AMA mailings, or by physician correspondence.

In addition to limiting the sample to nonfederal patient care physicians who have completed their residency programs, the following exclusions are made:

- Doctors of Osteopathy;
- graduates of foreign medical schools who are only temporarily licensed to practice in the United States;
- physicians for whom no current address is available; and
- physicians who were sampled in SMS surveys during the last three years.

Further exclusions are made after sample selection. These include:

- physicians who spend fewer than 20 hours per week in patient care activities or are federal physicians as determined from screening questions at the beginning of each interview, and
- those who cannot be located by mail or telephone after exhaustive tracking efforts are made.

The sample design utilized for SMS is a stratified, random sample with systematic selection from the listing of eligible physicians on the AMA Physician Masterfile. The strata are defined by nine major specialty groupings and ten geographical regions of approximately equal size. The specialty information used from the Masterfile reflect physician self-designated practice specialty. Systematic selection within each stratum assures that each specialty group and region is proportionally represented in the sample. The strata definitions are shown in Table 1. Stratification is used in SMS to increase the precision of certain sample estimates and to facilitate the analysis of individual strata. Once the sample is selected, the representativeness of each strata is reviewed to ensure that it is consistent with the stratum's population proportion.

In order to provide reliable estimates of short-term changes in certain indicators, SMS samples are designed to include a panel component. The panel consists of a portion of the sample from one SMS survey which is reinterviewed in a subsequent SMS survey. Approximately 40 percent of the completed interviews are conducted as reinterviews with physicians who had been initially interviewed in a similar survey in the previous year. The SMS program uses annual reinterviews of this type in order to monitor annual changes in various characteristics. Prior to 1984, much experimentation was done with the reinterview interval to optimize its usefulness. The decision to annually reinterview a portion of the sample was made because reports of annual changes provide more useful data than changes over shorter periods.

Questionnaire Content

The SMS questionnaire consists of three distinct sections:

- screening questions to verify the physician's self-designated practice specialty and eligibility for the survey;
- a main questionnaire to collect information on practice characteristics, hours worked, volume of services, fees for selected procedures, income and expenses; and
- special topics questions to provide information on emerging socioeconomic issues.

The screening and main questionnaire portions of the survey are identical in the core and supplemen-

Table 1. **SMS Survey Sample Strata**

Specialty Strata[a]

1. General Practice, Family Practice
2. Allergy, Cardiovascular Diseases, Gastroenterology, Internal Medicine, Pulmonary Diseases
3. General Surgery, Neurosurgery, Ophthalmology, Orthopedic Surgery, Plastic Surgery, Colon and Rectal Surgery, Thoracic Surgery, Urology
4. Pediatrics, Pediatric Allergy, Pediatric Cardiology
5. Obstetrics and Gynecology
6. Radiology, Diagnostic Radiology, Therapeutic Radiology
7. Psychiatry, Child Psychiatry
8. Anesthesiology
9. Aerospace Medicine, Neurology, Occupational Medicine, Physical Medicine and Rehabilitation, General Preventive Medicine, Public Health, Dermatology, Pathology, Forensic Pathology, Other Specialty, Unspecified

State Strata

1. Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
2. New York
3. Delaware, New Jersey, Pennsylvania, West Virginia
4. District of Columbia, Georgia, Maryland, North Carolina, South Carolina, Virginia
5. Alabama, Florida, Kentucky, Mississippi, Tennessee
6. Arkansas, Louisiana, Missouri, Oklahoma, Texas
7. Indiana, Michigan, Ohio
8. Illinois, Iowa, Minnesota, Wisconsin
9. Alaska, Arizona, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, Oregon, Utah, Wyoming, Washington
10. California

[a] The AMA Physician Masterfile classification of self-designated practice specialties is used in the specialty strata listing.

tal surveys in order to provide the basis for estimating levels and changes in economic characteristics of medical practice. However, the core survey includes an expanded main questionnaire portion to provide additional information on practice characteristics and information on annual income and expenses for the previous year. The information requested in this expanded portion remains constant from one core survey to the next.

Questions for the main questionnaire were developed from a review of past surveys and through consultation with physicians, sources within the AMA and Mathematica Policy Research, Inc., an independent consulting firm that assisted in the development of the SMS program. Efforts were made to maintain consistency of questions with those from the PSP from which trend information has been established over a period of years. However, modifications are made where it is deemed that the desired information would be more accurate if questions were changed. In addition, questions in the SMS surveys are designed so that physicians are asked only questions that are generally relevant to their specialty. A summary of the questionnaire used in the SMS surveys upon which this volume is based is included in Appendix C.

Special topics covered in SMS surveys during the last year have included:

- Charity care provided by physicians
- Third-party payments to physicians
- Patient charateristics
- Physicians responses to competition
- Professional liability

Special topics questions are formulated and reviewed by members of AMA staff representing a broad range of activity areas. All questions that have not been previously used in SMS surveys are pretested prior to the survey fielding to evaluate the wording and ordering of questions and to determine the ability of respondents to provide the desired information.

Field Procedures

The SMS data collection plan is designed to provide reliable information within a tight time schedule. The survey is completed primarily by telephone. Telephone administration significantly reduces the time required to produce survey results and increases the response rate. The surveys are administered by independent consulting firms contracted by the AMA. Mathematica Policy Research, Inc. of Princeton, New Jersey (MPR) has conducted interviews for all surveys for the SMS program since the second quarter of 1983.

Field procedures developed for SMS surveys reflect a complex effort to minimize bias from nonresponse and accommodate the busy schedules of physicians through careful advance preparation and intensive follow-up efforts to complete interviews. The activities involved in this effort are described below.

Advance Letter. Two weeks prior to data collection, advance letters are sent to each physician selected to be interviewed or reinterviewed. Each letter includes a brief description of the interview, the project sponsorship, identification of the survey contractor, information that the physician will be receiving a telephone call from an interviewer on the contractor's staff, and a pledge of data confidentiality. Each letter is printed on AMA letterhead and bears the signature of James H. Sammons, M.D., Executive Vice President of the American Medical Association. If a letter is returned due to an insufficient address, a search is initiated to obtain updated information so the physician may be sent another letter.

When the SMS program was initiated, many physicians indicated that they could not provide certain types of information during a telephone interview without advance preparation. As a result, questionnaire summaries were designed to provide the physician with a listing of the specific medical and surgical procedures for which fees will be requested, as well as with a description of income and expense questions. Since the 3rd quarter 1983 survey, this insert has been enclosed with each advance letter.

Telephone Search. Since inadequate coverage is a potential problem for telephone surveys, the AMA Division of Survey and Data Resources expends considerable effort to locate sample physicians. The basic sources used in the telephone look-up include directory assistance, state and county medical societies, state licensing boards and hospitals. If it is impossible to obtain a telephone listing for a physician from these sources, the next steps include reverifying the physician's data contained on the AMA Physician Masterfile, contacting state, county and specialty societies, initiating traces of physicians from former addresses appearing on the Masterfile and checking medical society directories. This ensures that the proportion of physicians in each sample stratum most accurately reflects that of the population. Approximately one week prior to data collection, the survey contractor is provided names, addresses and telephone numbers of physicians selected from the AMA Physician Masterfile.

Interviewer Training. Two days of study-specific training in addition to general training are provided to each interviewer before working on SMS surveys. Training includes a detailed review of each question (including instruction on pronunciation of various medical terms), practice interviews, and a review of interviewing and administrative procedures. AMA staff actively participate in the training process either in person or via teleconferencing to assure that all project specifications and instructions are clearly communicated, understood, and implemented.

Table 2. **Number of Completed Interviews and Response Rates in SMS Surveys Conducted in 1986 and the 1987 Core Survey**

Survey	Number of Completed Interviews	Response Rate
Core Survey 1986	4,014	63.7%
Supplemental Survey 1986	2,863	69.1%
Core Survey 1987	4,015	66.6%

During training, the contractor actively evaluates each potential interviewer for appropriate survey skills, such as reading ability, voice quality, grasp of the material and ability to develop rapport with physicians. The highest quality interviewers are then selected to work on the project.

Interview Process. Interviewing is conducted via a Computer Assisted Telephone Interviewing (CATI) process. This system produces a copy of the questionnaire on a computer screen. Responses to the questions are entered directly into the computer using this on-line system during the actual interview, eliminating any keypunching or separate data entry task. This reduces time schedules and maximizes quality by minimizing sources of error. In addition, this system has provided the ability to program range checks whereby a figure that is entered which exceeds the usual range automatically instructs CATI to prompt the interviewer to verify the response. This has helped reduce the number of invalid outlying responses.

A minimum of a 60 percent response rate is required in order to regard an SMS survey as complete. Vigorous efforts are made to achieve the cooperation of physicians and meet this standard because of the short field period of SMS surveys. These efforts include the following:

- Appointments for interviews are scheduled at the convenience of physicians at any time 13 hours a day from Monday through Saturday.
- A toll-free number allows physicians to complete the interview at their convenience.
- An optional mail questionnaire, tailored to each specialty and type of practice, is made available to

physicians who indicate a preference for responding to the survey in writing rather than by telephone.

- Repeated callbacks (a minimum of four) to nonrespondents are made before abandoning efforts to interview the physician.
- Letters encouraging participation and addressing specific objectives are sent to physicians who initially refuse to be interviewed.
- Refusal conversion attempts are made by a select group of interviewers. A substantial number of physicians decide to grant an interview at this stage.

The actual response rates achieved on SMS surveys since the beginning of 1986 are shown in Table 2. The results indicate the success of SMS in meeting its minimum 60 percent response rate standard.

Confidentiality. Data are entered via the CATI system and are released only in aggregate form without any individual respondent identifying information.

Quality Control. Each interviewer's work is monitored by the contractor's supervisory staff for both production and quality. AMA staff also monitor interviews by remote telephone hook-up to ensure that a high level of quality is maintained throughout the survey. If indicated, the contractor is instructed to retrain interviewers or remove interviewers from the SMS study.

AMA staff also track the SMS survey production. A detailed review is made of all sample disposition, both pending and final, on a weekly basis. As a result of this evaluation, the time schedule is reviewed and necessary recommendations are made to the contractor to enable the survey to be completed during the allotted field period.

As part of the annual SMS program review, the design and methodology are examined with an eye for identifying areas for improvement. Last year, the Center for Health Policy Research and the Division of Survey and Data Resources jointly undertook an evaluation of the impact of survey and item nonresponse rates and various potential methods for adjusting results to correct for nonresponse. The findings of that study and the consequent change in the methodology for computing statistical summary measures of SMS data are reported in Appendix B.

Reporting of SMS Results

Results obtained from SMS surveys are widely disseminated. In order to reach the physician community, results are published periodically in *AMNews.* Dissemination of information pertinent to the public is handled by the AMA Department of Public Information. *Socioeconomic Characteristics of Medical Practice*, or the "Gray Book," is an annual volume designed to provide more detailed results from SMS surveys than can generally be provided through other media.

Data from the SMS also serve as a basis for research on health policy issues. Analyses of such issues are disseminated through professional journals and conferences. This ensures that health policy analysts and researchers are apprised of important findings resulting from this program. Results from SMS surveys are reported at differing levels of detail depending on the nature of the media and the degree of precision of the estimates of physician characteristics deemed appropriate for the report. As indicated previously, data are never reported in any fashion that would allow identification of an individual respondent. Discussions of definitions and computation procedures employed in reporting SMS results are contained in Appendices B and D.

Conclusion

The Socioeconomic Monitoring System exemplifies a long-term commitment on the part of the American Medical Association to obtain valid and reliable socioeconomic information on the practice of medicine. The SMS Program complements AMA's other extensive data collection activities and its evolution represents a responsiveness to the need for the highest achievable data quality.

Appendix B
Weighting and Computation Methodology

The AMA's Socioeconomic Monitoring System (SMS) is designed to measure key indicators of the changing medical practice environment in a cost-effective fashion. Cost-effectiveness demands that only a limited percentage of the physician population be contacted each year. Specifically, SMS is based on a random sample drawn from the AMA Physician Masterfile's enumeration of all nonfederal patient care physicians excluding resident physicians. As such, SMS shares with all sample surveys the limitations that grow out of finite sample size. Thus, SMS is designed to produce reliable estimates for the ten specialty groups and nine Census divisions defined in Appendix A of this volume, but is less well suited to provide estimates of the practice environment for more detailed subspecialty or geographic breakdowns. The program is designed to provide estimates of both the yearly level of each indicator as well as measures of change over time.

By design, SMS should measure the changing environment accurately but with some margin for error. There are some sources of imprecision that occur in survey work that can increase the margin for error and introduce bias into the estimates. Variations in response rates across known subpopulations can significantly reduce the ability of a sample survey to describe accurately the changing experience of the population of interest.

For example, high response rates from AMA members and low response rates for nonmembers could reduce SMS's ability to represent the experience of the average physician if the experiences of these groups differ.

Even with relatively high response rates, variations in the rates may be sufficient to cause problems in reliably reporting the experiences of physicians. This appendix discusses the record of the SMS program in achieving representative samples, describes the standard statistical technique used to correct for this type of problem and indicates the computation formulas for statistics reported in this volume.

Since its inception in late 1981, the SMS program has been continuously scrutinized and improved as our experience with this telephone survey program has increased. In 1986, the AMA Center for Health Policy Research created a staff committee with members from each of the departments in the Center as well as the AMA Department of Survey Design and Analysis. This committee was charged with investigating weighting and imputation methods that are frequently used to adjust survey response data to better describe the experience of the underlying population of interest. The committee was asked to recommend a course of action for data reporting conventions in the SMS program.

In September 1986, the committee presented an interim report to the research staff at the AMA. The report reviewed the problems of unit nonresponse and item nonresponse for key variables collected by SMS.

Unit nonresponse occurs when no information at all is collected from a sampled physician because the physician is unlocatable, cannot be contacted, or refuses to be interviewed. Item nonresponse occurs when a physician agrees to be interviewed but chooses not to answer a specific item within the survey. Weighting, imputation, and regression techniques were applied to SMS data and results were compared. There are no clear criteria that permit one to choose the statistical correction most likely to represent the true population value for any indicator. In the case of the SMS variables analyzed

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This appendix was prepared by Sara Thran and William D. Marder, respectively Program Administrator and Department Director in the AMA Center for Health Policy Research.

Table 1. **Response Rates for SMS Survey by Demographic and Practice Characteristics, 1987**

	Response Rate		Sample Size	
	Initial	Reinterview	Initial	Reinterview
All Sampled Eligible Physicians	63.6%	74.0%	4102	1900
Years since M.D.				
0-9	68.7[a]	81.3[a]	657	272
10-19	60.0	68.8	1361	701
20-29	62.1	72.3	1094	476
30-39	66.5	78.9	683	312
40 or more	67.8	81.3	307	139
Specialty				
General/Family Practice	61.0[a]	73.5	636	264
Internal Medicine	56.0	71.0	905	358
Surgery	61.8	72.2	897	407
Pediatrics	68.6	81.7	277	142
Obstetrics/Gynecology	68.6	76.5	290	132
Radiology	70.7	79.1	215	134
Psychiatry	67.3	72.6	278	135
Anesthesiology	76.5	78.2	183	101
Pathology	80.0	80.9	120	68
Other	64.8	68.6	301	159
Board Certified				
Yes	63.2	74.9	2890	1348
No	64.4	71.9	1212	552
AMA Membership				
Member	67.3[a]	75.2	2090	1020
Nonmember	59.7	72.6	2012	880

a. $p < .001$.

by the committee the results for weighting, imputation, and regression corrections for nonresponse were closer to each other than to the unweighted data traditionally reported in the *Socioeconomic Characteristics of Medical Practice* (the "Gray Book"). The committee recommended that serious consideration should be given to reporting results based on weighted data. It suggested that the weights be based on a limited number of physician characteristics known from Masterfile data and should correct for unit nonresponse.

The results reported in this edition of the Gray Book were obtained using the weighting scheme recommended by the committee. Weights were developed for each of the SMS core surveys. The weights were derived by first dividing the AMA Physician Masterfile population (using the year-end file from the previous year) and the survey respondents into 200 cells defined by specialty (10 categories), years since M.D. (5 categories), AMA membership status (2 categories), and board certification status (2 categories). Unit response weights were constructed as the ratio of the number of physicians in the population to the number of SMS respondents in each cell. Second, an eligibility correction was employed. Nonfederal patient care physicians (excluding residents) are eligible for SMS. The eligibility correction divides the subset of the SMS population for which eligibility is known into 40 cells (according to years in practice, AMA membership, sex, and board certification) and calculates the proportion of physicians in each cell who are eligible. This defines

Table 2. **Mean Weights for Socioeconomic Monitoring System 1987 Core Survey**[a]

		Specialty								
	All Physicians	GP/FP	Int Med	Surg	Ped	Ob/Gyn	Rad	Psych	Anes	Path
All Physicians	1.00	1.04	1.14	0.99	0.91	0.91	0.86	0.96	0.89	0.65
Census Division										
New England	1.03	1.09	1.13	1.00	0.88	1.00	1.05	0.94	0.90	0.71
Middle Atlantic	1.03	1.06	1.16	1.00	0.96	0.93	0.90	0.96	0.88	0.72
East North Central	0.98	1.01	1.12	0.99	0.89	0.88	0.82	1.01	0.88	0.61
West North Central	0.98	1.01	1.13	0.98	0.89	0.90	0.90	0.97	0.92	0.63
South Atlantic	1.00	1.05	1.14	1.00	0.96	0.86	0.85	0.89	0.90	0.68
East South Central	1.02	1.03	1.18	0.97	0.87	1.02	0.84	1.11	0.83	0.64
West South Central	0.96	1.01	1.10	1.02	0.89	0.86	0.74	0.95	0.80	0.58
Mountain	0.99	1.04	1.13	1.01	0.91	0.91	0.82	0.89	0.93	0.69
Pacific	1.01	1.13	1.14	0.99	0.89	0.96	0.87	0.97	0.95	0.66
Type of Practice										
Solo	1.01	1.05	1.13	0.99	0.95	0.89	0.82	0.96	0.94	0.66
Non-solo	1.00	1.04	1.14	1.00	0.90	0.94	0.87	0.94	0.88	0.65
Location										
Nonmetropolitan	0.99	1.00	1.14	1.02	0.85	0.87	0.79	1.05	0.95	0.66
Metropolitan—										
Less than 1,000,000	0.99	1.07	1.14	0.99	0.90	0.89	0.84	0.92	0.86	0.65
1,000,000 and over	1.01	1.04	1.14	0.99	0.93	0.94	0.90	0.97	0.92	0.65
Employment Status										
Self-employed	1.00	1.04	1.13	1.00	0.91	0.87	0.84	0.96	0.91	0.64
Employee	1.01	1.05	1.15	1.01	0.92	1.15	0.90	0.96	0.86	0.67
Physician Age										
Less than 36 years	1.03	0.97	1.08	1.00	0.94	1.23	0.95	0.96	0.82	0.60
36-45 years	1.05	1.11	1.18	1.10	0.98	0.89	0.86	1.07	0.86	0.72
46-55 years	1.02	1.14	1.30	0.95	0.89	0.98	0.89	1.05	0.93	0.69
56-65 years	0.92	0.98	1.12	0.92	0.80	0.76	0.86	0.82	1.13	0.56
66 or more years	0.84	1.00	0.72	0.90	0.84	0.71	0.49	0.72	0.60	0.58

the eligibility weight. The overall weight applied for a given respondent is the product of a unit response weight and an eligibility weight. Weights were also constructed for each of the Periodic Surveys of Physicians, similar to the SMS weights but without an eligibility correction.

Table 1 contains information from the 1987 core survey that suggests the need for weighting. Each SMS survey has two components, an initial sample and an annual reinterview component. Table 1 shows the response rates and sample sizes for these two groups of respondents. The reinterview component has a much higher response rate and smaller variations among relevant subpopulations than the initial sample.

The initial sample response rate of 63.6% compares favorably with the Health Care Financing Administration's (HCFA) Physician Practice Cost and Income Survey of 1984-85. The HCFA survey achieved an overall response rate of 68% with a much longer field period and much larger budget. Of greater concern are the statistically significant variations in response rates in Table 1. These subpopulations represent the dimensions which the Weighting Committee found to be historically the most troublesome in the program. The two areas of greatest concern are the variations by specialty and membership status. Lower response rates in internal medicine and surgery may reflect the "busyness" of physicians in these fields and may introduce downward biases into estimates of hours worked, patient visits, and physician's incomes. Similarly, AMA membership status may be correlated with variables of interest. Survey efforts have been mounted to limit these variations in response rates. The 7.6 point spread in response rates of members and non-members is testimony to the effectiveness of these efforts. Nonetheless, significant differences remain and statistical techniques have been applied to the data to adjust the estimates.

Table 2 reports the mean values for the weights described above. The subpopulations reported in Table 2 correspond to the most detailed breakdowns reported in the Gray Book. Within these cells the average value for the weighting variable is highest for physicians in other specialties who are less than 36 years old. The lowest value for the weighting variable is for pathologists who are between 56 and 65 years old.

The formula for a weighted mean $\overline{X}_w$ using the value of a weight variable w_i is:

$$\overline{X}_w = \frac{\Sigma_i w_i X_i}{n}$$

where X_i is the variable value for observation i, n is the number of observations and it is assumed that the weights are normalized to sum to the number of observations.

The formula for a weighted standard error of the mean is:

$$\sigma_{\overline{X}_w} = \sqrt{\frac{\Sigma_i w_i (X_i - \overline{X}_w)^2}{n(n-1)}}$$

Appendix C
SMS Questionnaire Summary

This summary contains questions from the 1986 SMS surveys and the 1987 SMS core survey. Since the questionnaires are quite lengthy, some questions have been omitted from the summary, while others have been paraphrased. However, parts of questions that are paraphrased have been enclosed with square brackets. All questions relating to the statistics appearing in the main body of this book are included in this summary.

Screener Questions (All Surveys)

1. Our records indicate that [MASTERFILE SPECIALTY] is the specialty from which you derive most of your medical income. Is that correct?[a]
   (IF "YES", GO TO Q.2)
   a. What is your primary specialty?
2. During a typical week, do you provide direct patient care for 20 hours a week or more? Direct patient care includes seeing patients, performing surgery, as well as related patient services performed by anesthesiologists, radiologists and pathologists.
3. Are you currently a full-time, salaried employee of a federal agency such as the U.S. Public Health Service, Veteran's Administration or a military service?

Practice Characteristics (1986 Core Survey)

4. Are you a full or part owner of your main practice?
   (IF "YES", GO TO Q.9)
5. In your main practice, are you employed by a hospital?
6. In your main practice, are you employed by [a government agency]?
7. In your main practice, are you employed by another physician or group of physicians?
8. In your main practice, are you employed by a non-government clinic or HMO?
9. Which of the following legal forms of organization best describe your main medical practice?
   a. Sole proprietorship
   b. Partnership
   c. Professional corporation
   d. Investor-owned for-profit corporation
   e. Other
10. Including yourself, how many physicians are in your main practice?
    a. How many of these physicians are full or part owners of the practice?
11. In what year did you begin medical practice after completing your undergraduate and graduate medical training?
12. In what year did you start working at your current main medical practice?

Hours and Utilization of Physician Services per Week (1986 Core Survey)

The next few questions are about the number of hours you spent working at several medical and administrative activities during your most recent complete week of practice. Do not include hours spent on call if you were not actually working.

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a. Masterfile specialty is information obtained from the AMA Physician Masterfile.

All specialties except psychiatry, radiology, anesthesiology and pathology

13. During your [last] complete week of practice, how many hours did you spend. . .
    a. In the office or in freestanding primary or urgent care centers seeing patients? Do not include hours spent on call if you were not actually working.
    b. In the hospital emergency room and in out patient clinics?
    c. In the operating, labor or delivery room? Please include waiting time before surgery.
    d. Making hospital rounds, including visits to newborn infants?
    e. On house calls and with patients in nursing homes, convalescent homes or other extended care facilities?
    f. Having telephone conversations with patients or their families, consulting with other physicians and providing other services to patients such as interpreting lab tests and X-rays?
    g. In administrative activities connected with your practice and other medical facilities, as well as any other professional activities that did not involve patient care?
14. During [your last complete week of practice]. . .
    a. How many patients did you personally see in the office or in freestanding primary or urgent care centers?
    b. And how many visits did you have with these [number] patients? Please count as one visit every time you saw a patient.
15. During the [number] hours that you spent during [your last complete week of practice] in hospital emergency rooms and [outpatient clinics]. . .
    a. How many patients did you personally see?
    b. How many visits did you have with these [number] patients? Please count as one visit every time you saw a patient.
16. During the [number] hours that you spent seeing patients on housecalls, in nursing homes, convalescent homes and other extended care facilities. . .
    a. How many patients did you personally see?
    b. And how many visits did you have with these [number] patients?
17. During the [number] hours spent in the operating, labor or delivery room, how many operations and deliveries did you perform? Do not include assists.
18. How many assists did you perform during [your last complete week of practice]?
19. During [your last complete week of practice], how many inpatient visits did you make during the [number] hours spent on hospital rounds? Please count as one visit every time you saw a patient.

Fees for Selected Visits (1986 Core Survey)

All specialties except psychiatry, radiology, anesthesiology and pathology

23. Does your practice provide at least some medical care on a fee-for-service basis? (IF "NO", GO TO Q.25)
24. What is your current usual fee for. . .
    a. An office visit with a new patient including an evaluation history, examination and/or treatment?
    b. An office visit with an established patient including an examination, evaluation and/or treatment for the same or new illness.
    c. A follow-up medical visit in the hospital, when you charge a separate fee for hospital visits? This visit includes an examination, evaluation and/or treatment with a new or established patient with the same illness.

Hospital Utilization (1986 Core Survey)

All specialties except radiology, anesthesiology and pathology

25. During your most recent complete week of practice, how many patients did you personally discharge from the hospital?
26. Among those patients that you discharged in that week, what was [their average length of stay in days]?
27. How many of the [number] patients that you discharged from the hospital that week were Medicare patients?

28. For the [number] of Medicare patients you discharged from the hospital [during your last complete week of practice], what was [their average length of stay in days]?

1986 Income, Expenses and Weeks Practiced (1987 Core Survey)

Self-employed physicians only

29. Do you share some expenses with other physicians?

30. [In 1986, what (were your/was your share of your practice's)] total tax-deductible professional expenses for the following items to the nearest $1,000?[a]
    a. Professional medical liability or malpractice insurance premiums.
    b. Office expenses, including rent or mortgage for office space, utilities and telephone.
    c. Total nonphysician payroll expenses including fringe benefits.
    d. (IF RESPONSE TO 10 IS GREATER THAN RESPONSE TO 10a) [Physician payroll expenses for the physicians who are not owners of the practice], including fringe benefits.
    e. Medical materials and supplies, such as drugs, x-ray films and expenses for outside lab work, drugs and other services.
    f. Depreciation, leases and rent on medical equipment. Do not include the total purchase price or the replacement value of your medical equipment. Please report only that proportion that was tax-deductible in 1986.
    g. Other professional expenses, such as legal services, accounting services, office management services, professional association memberships, journals and continuing education, professional car upkeep and depreciation, and any other professional expenses [not mentioned].

All physicians

31. During 1986, how many weeks of medical practice did you miss because of . . .
    a. illness or vacation?
    b. military service or professional conferences?
    c. Altogether then you missed [a + b] weeks of practice and practiced [52-a-b] weeks. Is that correct?

32. During 1986, what was your own net income from medical practice to the nearest $1,000 after expenses but before taxes? Please include all income from fees, salaries, retainers, fringe benefits and other forms of compensation.

33. Were any contributions made into pension, profit-sharing or deferred compensation plans for you during 1986?
    (IF "YES", ASK PARTS a AND b)
    a. How much was contributed for you to the nearest $1,000?
    b. Did you include this amount in your [number] net income figure for 1986?

Physician Involvement with Medicare (1984 Core Survey)

34. [What] percentage of your revenues that [are] reimbursed under [Medicare].

35. For what percent of your services for Medicare patients do you accept assignment?

Physician Involvement with Medicare (1986 Core Survey)

36. What percentage of your revenues are received from Medicare?

37. a. [Are you] a participating physician in the Medicare program?
    b. (IF "NO") Nonparticipating physicians have the option to accept assignment on a case-by-case basis. For what percentage of your services for Medicare patients do you accept assignment?

Physician Responses to Competition (4th Quarter 1982 Survey)

38. (IF RADIOLOGIST, ANESTHESIOLOGIST OR PATHOLOGIST, SKIP TO Q.48)
    In the last month, how many housecalls, if any, did you make?

39. Thinking back to two years ago, how many housecalls, if any, did you make in a typical month?

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[a] First wording in parentheses is used for physicians in solo practice; second wording is used for physicians in non-solo practice.

40. How many hours, if any, do you currently schedule for evening or weekend office visits in a typical week?

41. Thinking back to two years ago, how many hours did you schedule for evening or weekend office visits in a typical week?

42. (IF NOT SELF-EMPLOYED, STOP)

Currently, how many full-time equivalent non-physician employees are under your supervision?

43. Two years ago, how many full-time equivalent non-physician employees were under your supervision?

44. (IF RADIOLOGIST, PATHOLOGIST OR ANESTHESIOLOGIST, STOP) Within the last five years, which of the following have you done? Have you . . .
    a. located your practice in a non-traditional setting such as a shopping center or store front?
    b. opened a satellite office or ambulatory care center, either alone or with other physicians?
    c. used surveys to learn about patient satisfaction with various aspects of your practice within the last five years?
    d. developed a patient newsletter?
    e. studied demographic information on your community for its effects on your practice in coming years?
    f. advertised your practice on radio or TV or in a newspaper or magazine within the last five years?
    g. employed an advertising, public relations or marketing firm or consultant?
    h. developed a written marketing plan for your practice within the last five years?

Physician Responses to Competition (1987 Core Survey)

45. a. Has your current practice advertised on radio or television during the last five years?
    b. Has your current practice advertised in a newspaper or magazine during the last five years?

46. a. During the [NUMBER] hours you spent seeing patients on housecalls, in nursing homes, convalescent homes and other extended care facilities that week, how many patient visits did you personally have? Please count as one visit every time you saw a patient.
    b. How many of these [NUMBER] visits were housecalls?

47. How many of the [NUMBER] hours you worked during your last complete week of practice were spent seeing patients at night or on weekends?

Professional Liability (1987 Core Survey)

48. Have any malpractice claims been filed against you during your career?
    (IF "YES", CONTINUE WITH THIS SECTION)

49. How many malpractice claims have been filed against you during your career?

50. How many of these [NUMBER] claims were filed during the last five years?
    (IF GREATER THAN 0, CONTINUE)

51. How many of these [NUMBER] claims were filed against you during the last twelve months?

Charity Care Provided by Physicians (4th Quarter 1982 Survey)

52. What percent of your patient visits in the last month were with patients who have become unemployed and lost their health insurance coverage in the last year?
    (IF 0, GO TO Q.54)
    (IF NOT FEE-FOR-SERVICE GO TO Q.54)

53. Are your currently providing any free or reduced fee care to patients who have become unemployed and lost their health insurance coverage in the last year?
    (IF "YES") By what percent has this reduced your billings in the last month?

54. (RADIOLOGISTS, ANESTHESIOLOGISTS and PATHOLOGISTS SKIP TO Q.55)
    What percent of your patient visits in the last month were with patients who have lost their Medicaid coverage due to program cutbacks in the last year?
    (IF 0, STOP)

(IF NOT FEE-FOR-SERVICE, STOP)

55. Are you currently providing any free or reduced fee care to patients who have lost their Medicaid coverage in the last year due to program cutbacks?
(IF "YES") By what percent has this reduced your billings in the last month?

Charity Care Provided by Physicians (1987 Core Survey)

56. In your last complete week of practice, did you work any time outside your practice providing care to the poor for which you were not compensated?
(IF "YES") How many hours did you spend providing uncompensated health care to the poor during that week?

57. By what percentage was the total dollar amount you billed for patient care services in 1986 reduced as a result of providing free or reduced fee care? Do not include losses due to bad debts in your estimate.

Fee Discounting (Autumn 1986 Survey)

58. During the last twelve months, did you provide any services to patients whose principal source of payment was. . .
    a. Medicare?
    b. Medicaid?

59. During the last 12 months, have you treated any patients covered by PPO contracts?

60. During the last 12 months, have you treated any patients on a fee-for-service basis who were covered by an IPA contract?

61. Other than the health insurance plans I've just mentioned, have you treated any patients during the last 12 months whose health insurance plan directly reimburses you?

62. What is your current usual fee for an office visit with an established patient, including an examination and/or treatment for the same new illness?

63. In your practice, are you reimbursed for an established patient office visit by all of your payors or does the amount you receive vary by payor?

64. What is the Medicare reasonable charge or allowance, including the patient's copayment, for an office visit with an established patient?

65. What is the reimbursement you receive from Medicaid for an office visit with an established patient?

66. What is the reimbursement you receive under PPO contract(s) for an office visit with an established patient?

67. What is the reimbursement you receive under IPA contract(s) for an office visit with an established patient?

68. What is the reimbursement you most commonly receive from health insurance companies for an office visit with an established patient?

Appendix D
Definitions of Variables

This appendix describes definitions used in reporting information from the AMA Socioeconomic Monitoring System (SMS). Changes in methodology over time relating to trends reported in the detailed tabulations in *Socioeconomic Characteristics of Medical Practice* (the "Gray Book") are also discussed. Most such changes relate to differences between SMS surveys and the AMA Periodic Surveys of Physicians (PSPs) on which data for years prior to 1981 are based. These changes should be carefully noted when making comparisons of data for years prior to and since 1981. In addition, it should be noted that there has been a major change in computational procedure in this edition of the Gray Book. The change and its implications are discussed in Appendix B.

SMS survey questions referenced in this appendix may be found in Appendix C. Tables referred to are those contained in the detailed tabulations.

Sample Population

The population from which samples are drawn for SMS surveys includes all active non-federal office-based and hospital-based physicians as defined by the AMA Physician Masterfile[a]. Residents are not included in the surveys. The population from which samples were drawn for the PSPs differed by the exclusion of hospital-based physicians. This difference should be recognized in any comparison between PSP and SMS data.

Specialty

Specialty classifications used in reporting SMS data are shown in Table 1. Specialty is determined from responses to Question 1 in SMS surveys. The question used in PSPs from 1974 through 1980 to determine specialty was as follows: "Please give the specialty from which you derived 50% or more of your medical income in [the last year]."

Census Region and Division

States included in each Census region and division are shown in Table 2. The state in which each physician was located is identified from the AMA Physician Masterfile.

Type of Practice

Physicians in solo and non-solo practices are distinguished in SMS surveys on the basis of responses to Question 10. Questions similar to Question 10 were included in each of the PSPs. In the few cases where the number of physicians is not known, the practices are characterized as non-solo.

Location

The location classification groups physicians into nonmetropolitan areas, metropolitan areas with a population less than one million persons and metropolitan areas with a population of one million or more persons. This classification was made on the basis of the demographic county classification contained on the AMA Physician Masterfile. Metropolitan areas include counties within Standard Metropolitan Statistical Areas (SMSAs), and counties outside SMSAs with populations over 50,000.

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a. Classifications used in the AMA Physician Masterfile are defined in G. Roback, et al., Physician Characteristics and Distribution in the U.S., 1984 Edition (American Medical Association, 1985).

Table 1. **SMS Survey Specialty Classifications**

SMS Specialty Classification	AMA Physician Masterfile Specialties
General/Family Practice	
General/Family Practice	General Practice, Family Practice
Medical Specialties	
Internal Medicine	Allergy, Cardiovascular Diseases, Gastroenterology, Internal Medicine, Pulmonary Diseases
Pediatrics	Pediatrics, Pediatric Allergy, Pediatric Cardiology
Surgical Specialties	
Surgery	General Surgery, Neurosurgery, Ophthalmology, Orthopedic Surgery, Otolaryngology, Plastic Surgery, Colon and Rectal Surgery, Thoracic Surgery, Urology
Obstetrics/Gynecology	Obstetrics and Gynecology
Other Specialties	
Radiology	Radiology, Diagnostic Radiology, Therapeutic Radiology
Psychiatry	Psychiatry, Child Psychiatry
Anesthesiology	Anesthesiology
Pathology	Forensic Pathology, Pathology
Other	Aerospace Medicine, Neurology, Occupational Medicine, Physical Medicine and Rehabilitation, General Preventive Medicine, Public Health, Dermatology, Emergency Medicine, Other Specialty, Unspecified.

Employment Status

Employment status is determined from the response to Question 4. Physicians who respond that they are whole or part owners of their main medical practice are deemed to be self-employed while the remainder are identified as employee physicians. In the 1987 SMS core survey physicians were coded as self-employed, employee or independent contractor. Independent contractors were classified as employees for the purposes of the employment status breakouts reported here. In the 1982 SMS core survey, the following question was used in place of Question 4: "In your main medical practice, are you: a) self-employed; b) employed by a private practice; c) employed by a hospital; or d) other?" The few physicians for whom employment status was not available were classified as employees.

Age

The age of each physician in PSP and SMS surveys was determined from birthdate information on the AMA Physician Masterfile.

Weeks Practiced per Year (Tables 1 and 2)

Weeks practiced in 1986 were calculated with responses to Questions 31a and 31b on the 1987 SMS core survey and verified with Question 31c. Weeks practiced in 1985 were calculated with responses to Questions 31a and 31b on the 1986 SMS core survey. The addition of Question 31c on the 1987 survey corrects an upward bias in the computational procedure for physicians in their first year of practice. Prior to the 1986 SMS core survey, the following question was asked:

How many weeks did you practice in 198–? Please do not include vacations, sick time, military service or other similar absences from practice.

Table 2 **Census Region and Division Definitions**

Census Region and Division	States
Northeast	
New England	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Middle Atlantic	New Jersey, New York, Pennsylvania
North Central	
East North Central	Illinois, Indiana, Michigan, Ohio, Wisconsin
West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
South	
South Atlantic	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
East South Central	Alabama, Kentucky, Mississippi, Tennessee
West South Central	Arkansas, Louisiana, Oklahoma, Texas
West	
Mountain	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
Pacific	Alaska, California, Hawaii, Oregon, Washington

Weeks practiced in 1985 and 1986 were calculated as 52 minus the sum of the number of weeks entered in parts a and b of Question 31.

Hours in Professional Activities per Week (Table 3 and 4)

Professional activities includes all patient care activities, administrative activities connected with medical practice and other professional activities that do not involve patient care, such as medical staff functions, teaching and research. Hours per week in professional activities in 1986 is based on "TOTAL HOURS" as calculated by the sum of the responses to the individual parts of Question 13 in the 1986 SMS core survey. Follow-up probes detailing the scope of the individual parts of these questions were used to avoid double counting of hours.

Hours in Patient Care Activities per Week (Tables 5 and 6)

Patient care activities include direct patient care and activities related to patient care, such as interpreting lab tests and x-rays and consulting with other physicians. Hours per week in patient care activities from 1982 to 1986 is based on the sum of the responses to parts a-f of Question 13 in the SMS core surveys. Hours per week in patient care activities for 1974 through 1980 was determined from responses to the second of the following questions included in the PSPs:

1. How many total hours did you practice during your most recent complete week of practice (exclude "on call" hours not actually worked)?
2. How many of these hours were spent in providing DIRECT patient care or patient related services (include patients' lab tests, interpreting x-rays, etc; exclude administrative tasks, meetings, etc.)?

Hours in patient care activities for 1976 through 1980, as defined here, was previously termed hours in direct patient care in the Profile of Medical Practice series published by the AMA.

Hours in Direct Patient Care Activities per Week (Tables 7 and 8)

Direct patient care activities include seeing patients in the office, on hospital rounds, in surgery and in other settings. Hours per week in direct patient care activities for 1982 to 1986 was determined from the sum of responses to parts a-e of Question 13 on the 1982 through 1986 SMS core surveys. Physicians in psychiatry, radiology, anesthesiology, and pathology are not reflected in computations of direct patient care hours in Tables 7 and 8.

Office Hours and Hours on Hospital Rounds per Week (Tables 9-12)

Office hours and hours on hospital rounds per week from 1982 to 1986 are based on responses to Questions 13a and 13d respectively in the SMS core surveys. Physicians in psychiatry, radiology, anesthesiology and pathology were not asked Questions 13a and 13d and are, therefore, not reflected in the data reported in Tables 9-12. Data on office hours and hours on hospital rounds for years prior to 1982 included in Tables 10 and 12 are based on PSP surveys. The questions used to collect this information in the PSPs were similar to those in the SMS surveys. Although questions on office hours and hours on hospital rounds were asked of physicians in all specialties in the PSPs, responses from physicians in psychiatry, radiology, anesthesiology, and pathology were excluded in the computations made for Tables 10 and 12 to make data for years prior to 1982 comparable to the data from the SMS surveys. The specialty exclusions account for differences in data for years prior to 1982 in Tables 10 and 12, other than for individual specialties, from data previously reported in the Profile of Medical Practice series.

Hours in Surgery per Week (Tables 13 and 14)

Hours in surgery per week in 1986 is based on responses to Question 13c in the 1986 SMS core survey. Physicians in psychiatry, radiology, anesthesiology and pathology were not asked Question 13c and are, therefore, not reflected in the data reported in Tables 13 and 14. Hours in surgery per week prior to 1986 in Table 14 are based on responses to similar questions on the earlier SMS core surveys.

Total Patient Visits per Week (Tables 15 and 16)

Total patient visits includes visits in the office, on hospital rounds, in hospital emergency rooms and outpatient clinics and in all other settings. Total patient visits per week in 1986 is based on the sum of responses to part a of Questions 14-19 on the 1986 SMS core survey. Total patient visits per week from 1982 to 1985 is based on responses to the following question:

During [your last complete week of practice], how many . . .

a. Patients did you personally see in the office, including outpatient surgery performed in the office?

b. Operations, deliveries and assists did you perform in the hospital?

c. In-patient visits did you make on hospital rounds? Please count as one visit every time you saw a patient.

d. Patients did you see in the emergency room and in outpatient clinics?

e. Patients did you see on house calls or in nursing homes, convalescent homes or extended care facilities?

Physicians in psychiatry, radiology, anesthesiology, and pathology were not asked either series of questions and are, therefore, not reflected in the data for 1982 to 1986 in Tables 15 and 16. Questions from the PSPs on which data on total patient visits per week for years 1976 through 1980 are as follows:

1976, 1978, 1979

How many patient visits did you have during your most recent complete week of practice. . .

a. at the office?

b. at the hospital?

c. at all other services (or facilities)?

1980

How many total patient visits did you have during your most complete week of practice (include all patient contacts other than telephone).

The mean numbers of patient visits for 1980 were significantly lower than the means for the years both before and after 1980 as a result of the changes in the form of the question. In order to avoid inappropriate interpretations, the 1980 patient visits numbers published in the 1983-1985 editions of the Gray Book have not been included in this year's edition. Although questions on visits were asked of physicians in all specialties in the PSPs, responses from physicians in psychiatry, radiology, anesthesiology and pathology were excluded in the computations made for Table 16 to make data for years prior to 1982 comparable to the data from the SMS surveys. The specialty exclusions account for differences in data for years prior to 1982 in Table 16, other than for individual specialties, from data previously reported in the Profile of Medical Practice series.

Office Visits and Visits on Hospital Rounds per Week (Tables 17-20)

Office visits and visits on hospital rounds per week in 1986 are based on responses to Questions 14b and 19 respectively in the SMS core surveys. Office visits and visits on hospital rounds per week in the years 1982 to 1985 were based on responses to the question:

During [your last complete week of practice], how many. . .

a. Patients did you personally see in the office, including outpatient surgery performed in the office?

b. In-patient visits did you make on hospital rounds? Please count as one visit every time you saw a patient.

Physicians in psychiatry, radiology, anesthesiology and pathology were not asked either set of questions and are, therefore, not reflected in the data in Tables 17-20. Data on office visits and visits on hospital rounds for years prior to 1982 included in Tables 18 and 20 are based on PSP surveys. The questions used to collect this information in the PSPs were similar to those in the SMS surveys. Although questions on office visits and visits on hospital rounds were asked of physicians in all specialties in the PSPs, responses from physicians in psychiatry, radiology, anesthesiology and pathology were excluded in computing Tables 18 and 20 to make data for years prior to 1982 comparable to the data from the SMS surveys. The specialty exclusions account for differences in data for years prior to 1982 in Tables 18 and 20 from data previously reported in the Profile of Medical Practice series.

Surgical Procedures per Week (Tables 21 and 22)

Surgical procedures per week in 1986 is based on responses to Questions 17 and 18 in the 1986 SMS core survey. Surgical procedures per week in 1982 to 1985 were based on responses to the question: "During [your last complete week of practice], how many operations, deliveries and assists did you perform in the hospital? Physicians in psychiatry, radiology, anesthesiology and pathology were not asked either set of questions and are, therefore, not reflected in the data reported in Table 22.

Hospital Utilization (Tables 23-26)

Data on patients discharged from the hospital per week and the length of stay of patients discharged in the years 1982 to 1986 are based on responses to Questions 25 and 26 on the respective SMS core survey. Physicians in radiology, anesthesiology and pathology were not asked Questions 25 and 26 and are, therefore, not reflected in the data in Tables 23-26.

Fees (Tables 27-32)

Fees for office visits with new patients, office visits with established patients and follow-up hospital visits between 1982 and 1986 were obtained in the SMS core surveys from responses to Questions 24a, 24b, and 24c respectively. Physicians in psychiatry, radiology, anesthesiology and pathology were not asked Question 24 and are, therefore, not reflected in the data in Tables 27-32. In the 1983 and 1984 Gray Books, the fee reported by each physician was weighted by the frequency with which the physician had each type of visit in computing average fees. This weighted average method was not used in the 1985, 1986, or 1987 Gray Books. In 1985 and 1986, the mean physician fee was computed as the simple average of responses. In 1987, the mean physician fee was computed as a simple average of responses weighted for survey nonresponse (see Appendix B). The mean fees reported for all years in Tables 28, 30, and 32 have also been computed in the latter fashion, so as to provide consistency among the information reported.

Data on fees for years prior to 1982 in Tables 28, 30 and 32 is based on the following questions from the PSPs:

For each of the following procedures, indicate the number of times you perform the procedure during a typical complete week of practice and the current usual fee you charge for the procedure.

a. Office visit, new patient, brief evaluation, history, examination and/or treatment.

b. Office visit, established patient, brief examination, evaluation and/or treatment, same or new illness.

c. Hospital visit, new or established patient, brief examination, evaluation and/or treatment, same illness.

Although these questions were asked of physicians in all specialties in the PSPs, responses from physicians in psychiatry, radiology, anesthesiology and pathology were excluded from the computations made for Tables 28, 30 and 32 to make data for years prior to 1982 comparable to the data from the SMS surveys. The specialty exclusions account for differences in the data reported for years prior to 1982 in Tables 28, 30 and 32 from data previously reported in the Profiles of Medical Practice series.

Professional Expenses (Table 33-41)

Professional expense information reported in Tables 33-41 refers to tax-deductible professional expenses from medical practice. Data on total professional expenses for 1986 is obtained either as the sum of the responses to parts a-g of Question 30 in the 1987 SMS core survey or, in the event any of these responses is missing, as the response to the question, "In 1986, what were your total tax-deductible professional expenses from medical practice to the nearest $1,000? Do not include contributions made for you into deferred compensation plans." Data on professional expenses for 1981 to 1985 in Tables 34, 36, 37-41 are based on responses to similar questions from the 1982 to 1986 SMS core surveys. The earlier SMS surveys, however, did not ask Question 30d on physician-payroll expenses. Data on professional expenses for years prior to 1981 reported in Tables 34, 36 and 37-41 are based on responses to the following questions from the PSPs:

1977

What were your total professional expenses in [YEAR] to the nearest $1,000? (Include only those expenses that are allowable business deductions for Federal income tax purposes. If in practice with other physicians, give only your share of the practice's expenses.)

1978-1979

What were your total tax-deductible professional expenses in [YEAR]? (If you shared expenses with other physicians, indicate your share only.)

While data relating to professional expenses for 1981 and after from the SMS surveys are based on only self-employed physicians, professional expense information for years prior to 1981 was obtained from all physicians responding to the PSPs. Note, however, that hospital-based physicians were not included in PSP samples.

Net Income After Expenses Before Taxes (Tables 42-49)

Physician net income is defined to include all earnings from medical practice after expenses but before taxes, including fringe benefits and contributions made into deferred compensation plans. Net income in 1986 was determined in the 1987 SMS core survey from responses to Question 32.

In addition, Question 33 was included as a probe to ensure that deferred compensation plan contributions were fully represented in net income. If the physician responded "no" to Question 33b, the response given to Question 33a was added to the response to Question 32 to obtain net income. Similar questions in the 1982 to 1986 SMS core surveys were used to obtain information on net income for 1981 to 1985, respectively. The questions in PSPs used to obtain net income information for years prior to 1981 included in Tables 43 and 47-49 were as follows:

1977-1978

What was your [YEAR] individual before tax net income from medical practice to the nearest $1,000?

1979

What was your 1979 individual net income before taxes from medical practice? (Include all income from fees, salaries, retainers, etc., as well as the value of all fringe benefits paid on your behalf, e.g., Keogh Plan.)

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